

# Final Stage Impact Assessment

Title: Smart Metering Policy Framework – Post 2025

Type of measure: Secondary legislation under negative resolution procedures

Department or agency: Department for Energy Security and Net Zero

IA number: DESNZ032(F)-25-SMIP

RPC reference number: RPC-DESNZ-25052-OA(1)

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Date: 04/02/2026

# Contents

1. Summary of proposal .....	3
2. Strategic case for proposed regulation.....	6
3. SMART objectives for intervention .....	12
4. Description of proposed intervention options and explanation of the logical change process whereby this achieves SMART objectives .....	14
5. Summary of long-list and alternatives .....	23
6. Description of shortlisted policy options carried forward .....	25
7. Cost-Benefit Analysis .....	27
8. Non-monetised costs and benefits .....	37
9. Risk and uncertainties .....	39
10. Small and Microbusiness Assessment (SaMBA) .....	40
11. Regulatory scorecard for preferred option.....	43
Part A: Overall and stakeholder impacts .....	43
Part B: Impacts on wider government priorities.....	46
12. Monitoring and evaluation of preferred option .....	48
13. Minimising administrative and compliance costs for preferred option .....	52
14. Growth impacts .....	54
Declaration .....	55
Summary: Analysis and evidence .....	56
Price base year: 2025 .....	56
PV base year: 2026.....	56

# 1. Summary of proposal

- 1.1 Smart meters are an essential upgrade to our national energy infrastructure. They bring significant benefits to consumers and underpin a modern, clean and flexible energy system.
- 1.2 Smart meters help consumers take control of their energy use, cut their energy bills, and unlock the benefits of the transition to clean power. They bring an end to manual meter readings and estimated bills, whilst providing households with near-real time information which they can use to save energy and cut their bills.
- 1.3 By supporting grid resilience and flexibility, smart meters also play a vital part in the government's commitment to deliver Clean Power 2030. They enable a flexible modernised energy system, that changes the way we use energy and provides significant benefits to consumers and suppliers. A more flexible energy system will allow us to scale up the use of renewables and reduce reliance on imported fossil fuels, giving us greater control of our energy security. The data from smart meters is helping Distribution Network Operators (DNOs) to more actively plan and manage their networks, as well as respond to outages more quickly.
- 1.4 The government is committed to ensuring that all consumers can benefit from smart meters as soon as possible. To support the Clean Power 2030 Mission and ensure no one is left behind, we are consulting on a framework to enable the vast majority of consumers to have smart meters by the end of 2030.
- 1.5 Consumers are at the heart of the smart meter rollout. However, we know that not all consumers have received the quality of service that we expect across the country. Improving the consumer experience of smart metering is a priority. We are working at pace alongside industry partners to improve smart meter services across all areas of Great Britain.
- 1.6 Previously, the government introduced a four-year 'Targets Framework' from 2022 to end 2025, under which energy suppliers were set annual smart meter installation targets, which collectively required energy suppliers to deliver smart meter coverage to at least 74.5% of the domestic sector by end 2025. It is the government's aim to ensure that new installations continue at pace, so that all energy consumers – including those yet to receive a first-time smart meter installation – can benefit from the rollout.
- 1.7 To enable this and maximise the number of working smart meters in Great Britain, the government is using the powers given in Section 88 of the Energy Act (2013) to amend the energy supplier licence conditions for three regulatory changes.
  - **For energy suppliers to take all reasonable steps to complete the domestic smart meter rollout by December 31<sup>st</sup>, 2030.** National Energy

System Operator's (NESO) recent Clean Power 2030<sup>1</sup> report recognised that smart meters are a key enabler for demand-side flexibility, and that 86%-90% operational electricity smart meter coverage is needed to enable the Clean Power 2030 ambition. Energy suppliers operate heterogeneous portfolios of meters with respect to their roll-out progress to date, the types of smart meter they operate, and the proportion of their smart meters that are currently operating in smart mode. This drives the varied mix of activities suppliers will be required to complete prior to 2033, including SMETS1 replacements, 2G/3G Communications hub-only exchanges, and ensuring smart meters are operated in smart mode, alongside the obligation for new domestic installations to be complete by the end 2030. An All Reasonable Steps obligation gives suppliers greater flexibility compared to the 2022-25 Targets Framework to meet their requirements in a way that best reflects their commercial and organisational priorities.

- **Clarifying the responsibilities of Suppliers to take all reasonable steps to recover and maintain meters in smart mode**, by adjusting the Data Communications Company (DCC) Licence and the Operational Licence Conditions in the Supply Licences. Standard Licence Conditions (SLC) 49 of the Electricity Supply Licence and SLC 43 of the Gas Supply Licence already require suppliers to take all reasonable steps to establish and maintain installed smart meters in smart mode. However, this policy includes amendments to the Supply Licence Conditions and a new reporting obligation in the DCC Licence to ensure consumer outcomes are given renewed focus. Specifically, these set specific requirements on suppliers to a) take all reasonable steps to resolve smart meters not operating in smart mode as soon as possible and within 90 days and b) take all reasonable steps to pre-emptively replace all Smart Metering Systems at risk of becoming non-operational ahead of Wide Area Network (WAN) services coming to an end (for example, with 2G/3G service switch-off by the mobile network operators by the end of 2033 smart meters will need to transition to using 4G before the 2033 end date). The amendment to the DCC Licence requires that DCC set out the relevant service end-dates. Linked to pre-emptive replacements, the department has established centralised arrangements to enable energy suppliers to complete communications hub-only exchanges<sup>2</sup>, where appropriate, in the context of the transition to 4G.<sup>3</sup>
- **Requiring energy suppliers to submit Deployment Plans to Ofgem**, setting out what activities for domestic consumers they will undertake each year to meet their new installation, operational and pre-emptive replacement obligations. Annual milestones within these deployment plans will be binding

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<sup>1</sup> See NESO (2024) <https://www.neso.energy/document/346791/download>

<sup>2</sup> SMETS1 and communications hubs are part of the same physical device so there is no other choice than replacing the communications hub alongside the meter. SMETS2 meters utilise the 2G and 3G networks only in the Central and South regions of Great Britain, and their associated communications hub devices can be exchanged without the need to replace the meters (if the meter still has a period of lifespan remaining at the time of the swap out).

<sup>3</sup> [Smart Metering Implementation Programme: DESNZ conclusions on 4G communications hub-only exchange site visit DCC charging mechanism and legal changes - Smart Energy Code](#)

from 2027 for new installations and pre-emptive replacements, including communications hub-only exchanges for SMETS2 in the Central and South regions of Great Britain.

### **Domestic and non-domestic sectors**

- 1.8 Measures within this Final Impact Assessment with respect to driving first time smart meter installations focus on the domestic rollout only. Policy proposals to drive new **non-domestic** installations post-2025 are addressed in a separate consultation which accounts for circumstances unique to the non-domestic energy market.<sup>4</sup> Subject to the outcome of that consultation, these measures would be assessed in a separate Final Impact Assessment.
- 1.9 The measures within this Final Impact Assessment with respect to maintaining meter functionality and driving pre-emptive replacements apply to both the domestic and non-domestic sectors. This is because objectives to ensure improvements in service are equally applicable to consumers in both sectors, and because technical solutions to drive improvements are sector neutral.

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<sup>4</sup> [Non-domestic smart meter rollout post-2025 - GOV.UK](#)

## 2. Strategic case for proposed regulation

### What is the problem under consideration? / What evidence is there to support the problem statement?

- 2.1 The 2022-25 Targets Framework driving suppliers to roll out smart meters came to an end on the 31<sup>st</sup> December 2025. As of the end of September 2025, 70% of domestic meters were smart meters.<sup>5</sup> Government intervention is required to ensure the smart meter rollout continues at pace, to deliver its anticipated benefits and support the Clean Power 2030 Mission. To drive the rollout of smart meters, government has used a series of policy frameworks to ensure that installations are carried out by all energy suppliers at the pace needed to deliver significant nationwide benefits, as well as actively engaging consumers to encourage them to take up the beneficial smart meter offer. Without a further policy in place, we would be at high risk of a decrease in this rate of installations, risking not only a lower final level of smart meter installation, but also a slower rollout to those consumers who wish to have smart meters installed and begin realising benefits.
- 2.2 Suppliers are obliged to maintain smart meters in smart mode, but with 8.3% of existing smart and advanced meters operating in traditional mode (as of Q3 2025) we need to ensure we increase supplier focus on consumer outcomes by maintaining smart services or quickly recovering them when they have been lost. With Ofgem compliance activity, there has been a 1.4 percentage point improvement across the first three quarters in 2025.<sup>6</sup> In addition, data from Ofgem's Consumer Satisfaction Survey shows that in July 2025 77% of smart meter owners were satisfied with their smart meter (up from 72% in July 2024), 7% were dissatisfied (down from 10% in July 2024).<sup>7</sup> While we acknowledge there has been some improvement, this positive progress needs to continue on an enduring basis. Without the amended Operational Licence Conditions, we risk leaving consumers without smart services for sustained periods and undermining public confidence in smart meters as result, impacting on our ability to complete the rollout.
- 2.3 Suppliers are required to replace all impacted smart meter systems to ensure that smart services are maintained as part of the transition to 4G communications when the 2G and 3G mobile networks are switched off by end 2033. As a result of the switch off, all SMETS2 meters in Central and Southern areas of Great Britain which operate on 2G and 3G networks will need their communications hubs replaced with 4G devices to maintain smart functionality. In some situations, it will be more cost-effective to replace the communications hub only (leaving the meters and other associated equipment in place) rather than exchanging the whole metering set (for example, where smart gas and electricity meters are early on in their operating and commercial life). However, existing Meter Asset Provider commercial arrangements

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<sup>5</sup> <https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-september->

<sup>6</sup> Smart meters in Great Britain, quarterly update September 2025.

<https://www.gov.uk/government/statistics/smart-meters-in-great-britain-quarterly-update-september-2025>. The Report includes an update from all large energy suppliers in the market in Great Britain at the end of Q3 2025, with data from small suppliers up to end 2024.

<sup>7</sup> [Energy Consumer Satisfaction Survey: July to August 2025 | Ofgem](#)

only cover situations where smart meter replacements are included as part of the site visit/replacement activity. As such, 2G/3G communications hub-only exchanges would need to be financed via individual supplier financing arrangements. This is likely to be an issue for small and medium suppliers in particular who can often have difficulties with cash flow and accessing appropriate financing. This is because they often do not have the assets to secure the loan and would have to borrow at higher interest rates, as lenders would view them as higher risk. The department has consequently established centralised arrangements to enable energy suppliers to complete communications hub-only exchanges, where appropriate, in the context of the transition to 4G.<sup>8</sup> As part of these arrangements, it was confirmed that the department and Ofgem would jointly establish a methodology for calculating a single reimbursement amount provided to energy suppliers per successful site visit. This is currently being consulted on by Ofgem.<sup>9</sup>

### Why is government action or intervention necessary?

- 2.4 Without government intervention it is unlikely that energy suppliers will make the investment to roll out smart meters and ensure they are functioning in smart mode at a pace and scale which ensures all consumers have the timely opportunity to benefit from smart meters. It delivers the greatest net benefit to society and supports the government's mission to deliver Clean Power by 2030.
- 2.5 Independent advice<sup>10</sup> was provided by the National Energy System Operator on the energy infrastructure required to deliver clean power by 2030. Completing this mission would mean that in a typical weather year the 2030 power system will see clean sources produce at least as much power as Great Britain consumes in total. This is underpinned by the rapid delivery of network and enabling infrastructure projects, including the flexible energy usage enabled by smart meters. We therefore consider action to ensure the smart meter rollout continues at pace, and that these smart meters are operating in smart mode, is imperative to avoid negative impacts on the planned decarbonised power system.
- 2.6 Regulating for outcomes which can drive smart meter coverage and safeguard consumer benefits during the rollout has been used to leverage benefit to Great Britain to date. Regulation continues to be required to address the following key factors which prevent a socially optimal rollout of smart meters that are functioning in smart mode:
- a. **The presence of externalities:** The installation of smart meters functioning in smart mode will make our energy system more efficient and flexible, enabling us to use more renewable energy more effectively and reduce our reliance on fossil fuels. Suppliers and consumers cannot capture the value of the positive externalities associated with using more renewable energy and reducing our reliance on fossil fuels. Positive external benefits include reduced greenhouse gas emissions, better air quality, and improved energy security. As these

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<sup>8</sup> [Smart Metering Implementation Programme: DESNZ conclusions on 4G communications hub-only exchange site visit DCC charging mechanism and legal changes - Smart Energy Code](#)

<sup>9</sup> [4G communications hub-only exchange site visits: proposed methodology for calculating a centralised price | Ofgem](#)

<sup>10</sup> <https://www.neso.energy/document/346651/download>

external benefits are often overlooked or are non-market goods, investment in the rollout of smart meters would not be at a level that maximises social welfare.

- b. **Coordination failure:** There is a risk of the energy suppliers only installing, replacing and repairing at the rate of the slowest supplier in the market, and therefore prolonging the rollout and delaying the benefits gained. In addition, suppliers who install smart meters first may be disadvantaged, as they face a higher risk of losing customers through churn after investing in the installation, with consumers potentially switching to a different energy provider. Suppliers that resolve or pre-emptively replace smart metering systems at a higher rate and pace than others may be similarly disadvantaged due to losing consumers after expenditure on these activities and gaining smart meters not operating in smart mode. In the absence of government intervention, it is unlikely that energy suppliers will complete the rollout of smart meters alongside pre-emptive replacements to maintain smart services and ensure smart meters are operating in smart mode, due to the difficulties in coordinating such a significant national infrastructure upgrade.
- c. **Access to capital:** Smaller energy suppliers can face significant barriers to entry in capital-intensive markets due to limited access to affordable finance and capital market failures, particularly when competing against larger, established suppliers. Despite smart meters delivering long-term environmental and economic benefits, smaller suppliers face barriers such as limited credit availability, long payback periods, and perceived investment risks. Additionally, the positive externalities they generate, such as reduced emissions, are not reflected in private returns, leading to systemic underinvestment. Where suppliers are required to undertake regulatory action for a social benefit, such as communications hub-only exchanges, but there is no funding mechanism such as those that exist for full meter replacements, this would mean suppliers would need to rely on individual financing arrangements which would likely disadvantage smaller suppliers.
- d. **Misaligned incentives:** without further intervention energy suppliers, who incur the direct costs of rolling out smart meters but only partially benefit, are not incentivised to install a sufficient number of meters that ensures all consumers can benefit from a smart meter, where consumers largely benefit but do not face the upfront costs of the rollout. As such, different energy suppliers may take varied approaches to the smart metering rollout and may no longer be incentivised to maintain/grow their smart metering workforces.

2.7 In the absence of government intervention, we project that the level of domestic smart meter coverage by end of 2030 will be around 78%.<sup>11</sup> For new domestic installations after the end of 2025, energy suppliers would only be required to install smart meters under the ongoing new and replacement obligation (NRO) in Supply Licences (Electricity SLC 39.7 and Gas equivalent) which requires that suppliers

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<sup>11</sup> N.B. Official statistics, covering the end of 2025, are scheduled for publication on 19 March 2026, projected figures have therefore been used in this analysis.

take all reasonable steps to install smart meters in new properties or where meters are being replaced. The predicted level of smart meter coverage from only the NRO is not consistent with the National Energy System Operator's advice<sup>12</sup> on how to enable a zero-carbon electricity system by 2030 which suggested 86-90% working electricity smart meter coverage would enable the volume of demand flexibility that is required to support the Clean Power 2030 Mission.

- 2.8 Moreover, significant consumer benefits can be accrued from further installations in both gas and electricity sectors, which will not be realised without intervention. Gas smart meters deliver substantial bill and carbon savings and deliver a better service to customers, particularly prepayment customers. After all costs, the smart meter rollout is set to deliver a £6 billion net benefit – further details of these can be seen in the results of the 2019 Cost-Benefit Analysis.<sup>13</sup>
- 2.9 Whilst the 2022-2025 Targets Framework proved effective at driving new installations, we consider that policy should take account of the larger variety of tasks from 2026 that need to be completed by energy suppliers.
- 2.10 SLC 49 of the Electricity Supply Licence and SLC 43 of the Gas Supply Licence relate to suppliers taking all reasonable steps to establish and maintain installed smart meters in smart mode. We consider that amendments to the operational licence conditions, in conjunction with a new reporting requirement on the DCC, will help to clarify and optimise the consumer outcomes being sought. It will afford all consumers a consistent experience and provides a transparent service level requirement that ultimately ensures an increased response speed where any meter falls into traditional mode. Moreover, it increases confidence that meters will be replaced pre-emptively ahead of WAN services being terminated. Together, these measures give improved confidence that the solutions and investment needed to support a sustained increase in the percentage of smart meters operating in smart mode will be secured.
- 2.11 Without government intervention, customers with a smart meter that is not operating in smart mode (where they are without smart services for prolonged periods) are more likely to have poor information about their energy usage and costs. Smart meters in traditional mode mean that consumers need to manually read their meters (or will receive estimated bills) and their In-Home Displays (IHDs) will not receive the latest tariff or price information.<sup>14</sup> Therefore, these consumers are less empowered to engage in the energy market and secure the cheapest tariff for their energy use. Our evidence shows consumers with smart meters reduce their energy use by ~3% compared to those without as they engage with information from their smart meter.<sup>15</sup> Consumers whose meters are not in smart

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<sup>12</sup><https://www.neso.energy/document/346651/download>

<sup>13</sup><https://assets.publishing.service.gov.uk/media/5d7f54c4e5274a27c2c6d53a/smart-meter-roll-out-cost-benefit-analysis-2019.pdf>. Values referenced here are discounted to 2019 and are in 2011 prices

<sup>14</sup> The In-Home Display (IHD) which households are offered when they have smart meters installed, gives accurate information about energy consumption in pounds and pence in near-real time, so consumers can easily understand how to use less and save money. IHDs provision is included in smart meter installations.

<sup>15</sup> <https://www.gov.uk/government/publications/impacts-of-smart-metering-roll-out-on-household-energy-use>

mode risk losing access to the information they need to make those savings. Consumers with smart meters not in smart mode are also highly unlikely to be able to take advantage of time of use tariffs that could reduce their costs or be able to use energy flexibility schemes.

- 2.12 Some 12 million first generation (SMETS1) meters are at risk of falling into traditional mode as DCC first generation WAN service end dates (expected to be during 2033) if they have not been replaced before. There are a similar number of second-generation smart metering systems (SMETS2) at risk of falling into traditional mode by the end of 2033 when 2G/3G services are to be switched off. Therefore, measures to reinforce the need for suppliers to pre-emptively address the risk of smart meters losing smart mode and the availability of centralised funding for SMETS2 4G communications hub-only exchanges (that equalises the cost across suppliers), can give us further confidence that these replacements will happen in the timescales needed.

### **What gaps or harms would occur if government doesn't intervene?**

- 2.13 In the absence of government intervention, it is expected that substantially fewer consumers would benefit from smart meters and that those consumers whose smart meters fall into traditional mode, would see this persist for longer. This would create a number of negative consequences, including:
- a. **Insufficient smart meter installation coverage to enable sufficient flexibility opportunities** and springboard Great Britain into a low carbon electricity future and meet the objectives of the Clean Power 2030 Mission. This is particularly important for customers wanting smart meters to realise the full benefits of low carbon technologies.
  - b. **Labour market impacts** as fewer installers than currently employed (c.6,000 full-time equivalent) would be needed to deliver the New and Replacement Obligation (NRO). Alongside the direct consequences on individuals and unemployment levels this would also become a rate limiting factor on increasing smart meter uptake in the future, due to the cost and time needed to ramp up resources again.
  - c. **Risks the benefits from completing the smart meter rollout are not realised**, primarily as fewer consumers would have smart meters without intervention and therefore would not be able to benefit from lower bills as a result of having increased understanding of their energy consumption (leading to a reduction in energy used) and access to a wider range of tariffs which rely on a smart meter, such as Time of Use tariffs. A slowing of the smart meter rollout also leads to consumers and suppliers not realising the additional benefits, for example supplier operational efficiencies, associated with smart metering. These can be seen in detail within the cost benefit analysis section of this Final Impact Assessment.

- d. **Ongoing elevated meter read costs** for energy suppliers, due to needing to employ meter readers and maintain legacy systems.
- e. **Unequal access to the consumer benefits of smart prepayment meters**, such as the ability to top up electronically, balance tracking, or the automatic provision of emergency credit, as these would not be universally available. A lack of government intervention may mean that the consumers who would most benefit from smart prepayment are not reached by suppliers.
- f. **Inequity in the distribution of costs and benefits across the consumer base** as benefits would mainly accrue to those consumers with smart meters operating in smart mode.

2.14 A Post-Implementation Review (PIR) of the smart meter rollout is scheduled from 2035. The Programme conducts extensive ongoing monitoring and evaluation, with findings incorporated into the design and appraisal of proposed new or amended policies, as detailed in Section 12. The Programme has also recently commissioned a large-scale Interim Programme Evaluation which is due to report throughout 2026/27 on a wide range of benefits including: wellbeing, energy-saving and flexibility benefits for domestic and non-domestic consumers; system-level benefits in energy network operations and small-scale flexibility; and those resulting from the development of a trained smart meter installer workforce.

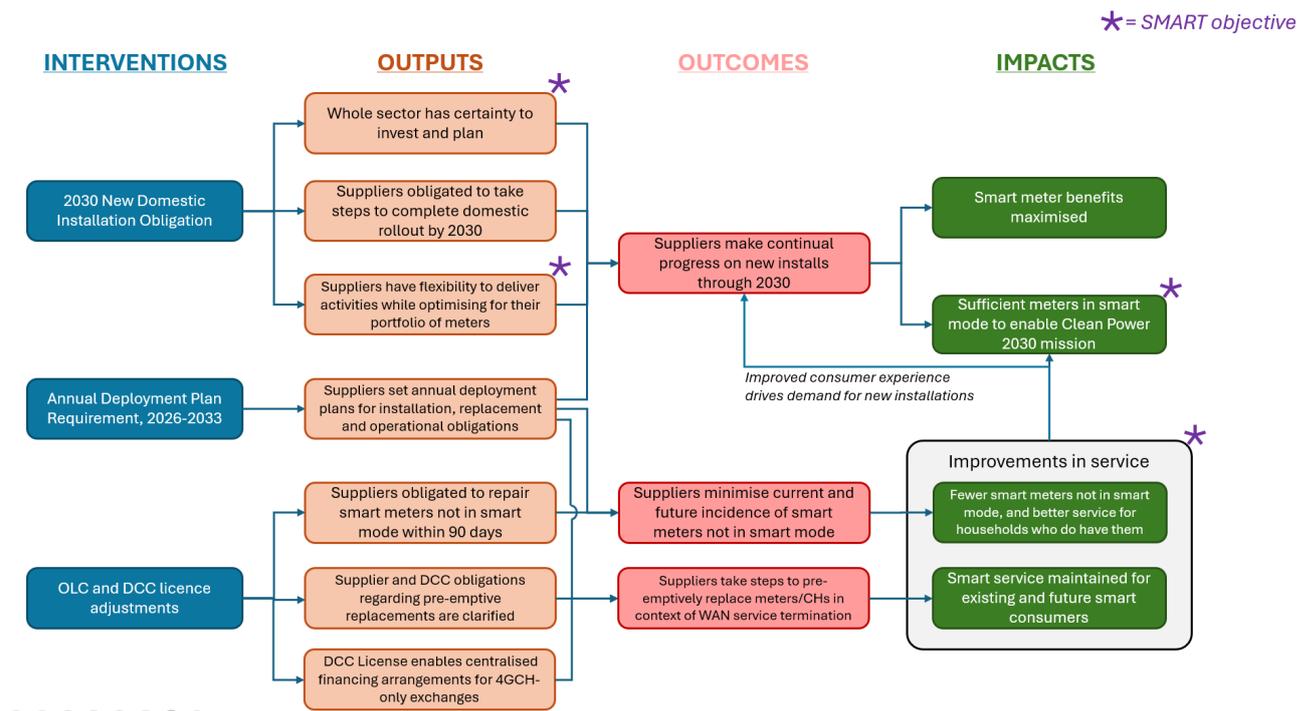
### 3. SMART objectives for intervention

- 3.1 We identified four key design principles underpinning the policy framework which have been in place for a number of years and remain relevant today. These are:
1. To encourage consumers to benefit from the rollout of smart meters, including how to use the data from their smart meters.
  2. To deliver a market-wide rollout of smart meters as soon as possible, that ensures value for money and maintains installation quality so that consumers can derive maximum benefit and have a good experience.
  3. To normalise smart meters so they are the default meter used in Great Britain.
  4. To provide certainty to the whole sector to invest and plan.
- 3.2 For this analysis, we identified the following SMART objectives which align with the design principles listed above:
1. **Improvements in Service:** Short term (2026/27) and enduring improvement in smart meters operating in smart mode, to be evidenced in annual supplier returns to the regulator;
  2. **2030 Market-wide Rollout:** To fulfil a market-wide domestic roll out of smart meters to be evidenced in annual supplier returns to the regulator, thereby facilitating the Clean Power 2030 Mission;
  3. **Future Flexibility:** To allow suppliers to deliver their planned activities in a way that optimises their (current and future) portfolio of meters and broader commercial priorities while also meeting the 2030 obligation for smart meter rollout progress. To be measured through ongoing engagement with energy suppliers;
  4. **Certainty:** To provide certainty and clear objectives as soon as possible to the whole sector to invest, plan and ensure sustainable growth in operational readiness, ahead of and beyond 2030;
- 3.3 These design principles and SMART objectives align with the objectives of the Department for Energy Security and Net Zero:
- “[To lead] the Government mission to achieve clean power by 2030 and accelerate to net zero.” – by ensuring that overall proportion of operating smart meters is maximised, we will assist the Clean Growth transition.
  - “[To provide] British jobs and supply chains and a successful Great British Energy” – ensuring that any plans allow investment for sustainable

growth allows UK based green workforces to be maintained/grown as appropriate to market needs.

3.4 A theory of change for this package of policy measures has been included below in Figure 1, showing how the interventions lead to the achievement of the SMART objectives. Note that the role of the Smart Metering Implementation Programme (SMIP) is primarily in assisting and stewarding suppliers and other rollout partners to deliver their outputs, outcomes and impacts. Accordingly, SMIP is not directly represented on the theory of change.

*Figure 1 – Smart Metering Policy Framework Post 2025 Theory of Change*



## 4. Description of proposed intervention options and explanation of the logical change process whereby this achieves SMART objectives

- 4.1 Maximising levels of smart meters in smart mode means needing to ensure that energy suppliers:
- Continue successfully installing smart meters at pace;
  - More urgently address smart meters not operating in smart mode to ensure consumers have their smart services resolved within an acceptable timeframe; and
  - Replace all impacted smart metering systems in advance of any relevant Wide Area Network services being terminated.
- 4.2 The preferred policy option at consultation stage was the following package of mutually reinforcing measures:
1. **An All Reasonable Steps (ARS) obligation for suppliers to complete the smart meter rollout for domestic consumers by end of 2030.**<sup>16</sup> This provides a clear signal for energy suppliers to continue to invest at scale after the end of the 2022-25 Targets Framework;
  2. **Introduce a target on energy suppliers to take all reasonable steps to recover smart meters not operating in smart mode, in both domestic and non-domestic sectors, as soon as possible and within 90 days,** building on the existing obligation on suppliers requiring that they operate all smart meters in smart mode;
  3. **Refine the Operational Licence Condition in Supply Licences to ensure suppliers take the relevant steps to pre-emptively replace smart metering systems before relevant communication services terminate, in both domestic and non-domestic sectors, so that smart services are maintained.** This will be supported by a DCC licence amendment that requires early communication by the DCC about WAN end dates; and centralised funding arrangements for communications hub-only exchanges through the DCC. This funding arrangement will enable energy suppliers to complete communications hub-only exchanges where appropriate (i.e. on SMETS2 in the Central and Southern regions of the country and when the meter assets do not need replacing), and ensure all energy suppliers, regardless of their size, are equally supported in completing the transition to 4G in a timely way. The centralised funding arrangements will help to ensure

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<sup>16</sup> Proposals with respect to driving new smart meter installations to non-domestic consumers are addressed in a separate policy consultation (see: [Non-domestic smart meter rollout post-2025 - GOV.UK](#)). Subject to the outcome of the consultation, the rationale for intervention (including why a different policy pathway is proposed for the non-domestic sector), would be presented within a separate Final Impact Assessment in due course.

fair competition across energy suppliers by enabling them to finance communications hubs exchanges at the same rate.

4. **Require suppliers to submit annual deployment plans to Ofgem**, setting out what activities they will undertake each year to meet the above requirements in the domestic sector, for which the annual milestones they set out will be binding from 2027 for new installations and pre-emptive replacements.

4.3 This package of measures maximises our contribution to the smart objectives set out above in seeking to prioritise the consumer experience, and sets clear expectation on suppliers to drive progress to support the Clean Power 2030 Mission whilst providing flexibility to account for the range of different challenges presented by the forthcoming period, notably:

- The total amount of installation or replacement activities required is higher on average than achieved under the 2022-25 Targets Framework. This will necessitate a limited increase in both activities and installation capacity (though some replacements will require less capacity than meter installations) to deliver them over the period to 2030. For example, to deliver the levels of smart installation coverage anticipated by 2030, suppliers would need to grow smart meter related activities from ~4.1m to ~4.6m a year on average from 2026 and increase installation capacity by c.1,000 additional installers by 2028/29.
- Delivering the highest levels of installations included in the range identified by the department will require an increase in conversion rates (the proportion of non-smart consumers who get a smart meter each year) as well converting consumers who have, to date, been ambivalent about the benefits smart meters offer. There is, however, a range of evidence that supports take up significantly above the lower bound (85%) by end of 2030 being achievable (see Paragraph 4.6).
- A key enabler of achieving higher levels of installation progress is installation capacity. Areas that have had higher levels of capacity over time have reached the highest levels of smart meter coverage (as of Q1 2025, at least 79% of meters were smart in six Local Authorities). The clarity provided by the All Reasonable Steps obligation to complete the roll-out will help all energy suppliers take steps to ensure that they are appropriately resourced across Great Britain.
- Suppliers have asymmetric portfolios with some suppliers having much higher proportions of first-generation smart metering (SMETS1) or second-generation smart metering systems (SMETS2) with differing commercial exposures that are linked to premature replacement charges and various communication services end dates; some have a higher proportion of smart meters not operating in smart mode; and some have higher levels of smart coverage. By employing All Reasonable Steps obligations coupled with self-set annual milestones through deployment plans, this will ensure suppliers are able to achieve outcomes in the most efficient way whilst ensuring Ofgem has early trigger points at which to assess compliance and check the overall trajectory

towards completion of the rollout.

4.4 Details of each component are set out in the remainder of Section 4. However, in summary, we consider this package of measures fulfils the SMART objectives as:

- The obligation to complete the domestic smart meter rollout by the end of 2030 will drive the market-wide rollout of smart meters, and, in combination with the measures to ensure smart meters are operating in smart mode, will ensure that smart meters contribute to the Clean Power 2030 Mission.
- The 90-day requirement will deliver improvements to consumer experience through driving faster resolutions of smart meters not operating in smart mode. Alongside amendments to the Supply Licence and the DCC Licence Conditions to more explicitly require and enable pre-emptive replacements ahead of WAN services ending, and the introduction of a supporting centralised financing framework for 4G communications hub-only exchanges for SMETS2 meters in Communications Service Provider (CSP) Central and South, we have more confidence that the right resourcing will be secured in the timescales needed to leverage enduring smart services.
- All Reasonable Steps obligations, combined with deployment plans in which suppliers will annually set out their plans, will give suppliers the operational flexibility to undertake activities at a scale and sequence in a way which best matches their own business strategies, commercial exposure and consumer expectations, leveraging a cost-efficient rollout.

#### **A 2030 New Installation Obligation**

4.5 The policy requires that energy suppliers must take all reasonable steps to reach 100% domestic smart meter coverage by the end of 2030. This obligation is expected to significantly accelerate the completion of the smart rollout compared to relying on the New and Replacement Obligation (NRO) alone. This will provide clear ambition and early certainty that allows suppliers to plan and invest in supply chains now so that we can realise the benefits of a sustainable increase in installer capacity and coverage. By providing a clear signal, we expect suppliers to be able to provide additional installation capacity through mobilising additional installer resource or through bringing in other installer actors, or both. We consider this is reasonable to achieve given the lead-in times and the significant benefits from maximising smart coverage. Employing an All Reasonable Steps obligation coupled with self-set annual targets (see below for further details) will allow suppliers to achieve outcomes in the most efficient way whilst ensuring Ofgem have early trigger points at which to assess compliance and sense check the overall trajectory as proportionate.

4.6 We expect suppliers to be able to build on current conversion rates which, if maintained, will allow the rollout to achieve progress at or above the lower bound

assumption (85%).<sup>17</sup> There is a range of evidence that suggests that achieving high levels of overall coverage is a realistic ambition:

- Current rates of progress being reported by energy suppliers show that customer conversion has increased slightly in 2025 to date.<sup>18</sup> This is reflective both of positive consumer attitudes, successful engagement approaches, and installation field force.
- Local authority level rollout progress statistics show that high levels are possible, with the proportion of domestic electricity meters that are smart meters at or over 79% in six areas (as of Q1 2025).<sup>19</sup> This provides confidence that high levels of coverage are possible across Great Britain.
- Consumer attitudes data shows that the majority of non-owners are open to getting a smart meter: 48% are neutral or positive about getting one in the next 6 months and an additional 23% indicate that they could be open to a smart meter at some point but wouldn't want one installed in the next 6 months. Only a minority (18%) currently indicate that they don't intend to ever get a smart meter, when scaled to the whole population this group represents only 6% of all GB households.<sup>20</sup> In addition, negative attitudes are not fixed - we are aware that even those who say they would reject smart meters can change their minds. Of a sample of people who said that they would reject a smart meter in the next 6 months, 14% reported they then got, or tried to get, one in that time period.<sup>21</sup> We expect this figure to further improve as suppliers drive down the proportion of smart meters not operating in smart mode and improve overall consumer experience (and associated word of mouth) as a result.
- We continue to expect demand for smart meters to improve as we move towards Clean Power 2030, through the increasing use of low-carbon technology (such as electric vehicles, solar panels, or heat pumps), where smart meters often provide significant co-benefits through tailored tariffs, and we would encourage suppliers to make full use of these opportunities by deploying smart-contingent tariffs and related incentives. Flexibility is a potential motivator with around half (48%) of non-owners saying that they think they could benefit from using energy flexibly.<sup>22</sup>
- Technological and policy advances mean that technical barriers either have been or are being resolved, either by suppliers or key industry partners such as the DCC. For example, the introduction of Virtual WAN (VWAN) will enable smart meters to be installed where WAN set up is initially challenging, whilst alternative meter variants overcome specific hurdles for individual properties.

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<sup>17</sup> From SMIP (2025) Internal Model - not published. The proportion of traditionally metered customers who go to install a smart meter each year. Based on suppliers' reporting to SMIP on both smart meters at new

<sup>18</sup> [Smart meters in Great Britain, quarterly update September 2025 - GOV.UK](#)

<sup>19</sup> [Smart meters in Great Britain, quarterly update March 2025 - GOV.UK](#)

<sup>20</sup> Smart Energy GB, May 2025, unpublished. A survey of 7854 GB adults, fieldwork was conducted online and via CATI in May 2025. Weighted to be nationally representative.

<sup>21</sup> Smart Energy GB, May 2025. Unpublished. surveyed 1,184 UK adults who 6 months prior stated they do not have a smart meter, of whom 726 said they would reject one if offered in the next 6 months. Fieldwork was conducted online and via CATI in May 2025. Data was weighted to be representative of the seek/accept/reject profile in their prior survey

<sup>22</sup> Smart Energy GB, May 2025, unpublished. A survey of 7854 GB adults, fieldwork was conducted online and via CATI in May 2025. Weighted to be nationally representative.

- 4.7 Although this is something we ultimately expect to be driven by energy suppliers. We will continue to consider other ways in which government policy can support the rollout, including further potential measures to support consumer experience, demand and conversion, as appropriate.
- 4.8 Proposed regulations on energy suppliers with respect to driving new smart meter installations in non-domestic premises are addressed in a separate policy consultation (see 1.8).
- 4.9 The ability to request information about the rollout from energy suppliers is specifically tied to SLC43.11 (and gas equivalent) and the ARS specified date, which is currently set as 30 June 2021, as defined in Standard Condition 1. Therefore, this RFI duty would expire five years from this date, on 20 June 2026. As part of this policy, we will be extending the ARS specified date to 31 December 2030, in line with the rollout obligation. As this is a continuation of the existing powers, no assessment of this change has been carried out in this Final Impact Assessment.

### **Support improvements in smart meter operations through amending Supply Licence Conditions**

- 4.10 The policy includes two changes to the Operational Licence Condition in Supply Licences: i) introduce a time bound limit within the existing All Reasonable Steps operational obligation for smart meters that fall into traditional mode and ii) clarificatory amendments which explicitly act to require pre-emptive replacements of smart metering systems to be compliant with the Operational Licence Condition. The policy also includes complementary amendments to the DCC Licence and ensures the timescale and impacts of technology changes are clearly communicated to suppliers, alongside the introduction of centralised funding arrangements to facilitate pre-emptive replacements specifically for the exchange of communications hubs that can support 4G services, where a meter replacement is not required.<sup>23</sup> These changes will apply to both domestic and non-domestic sectors.
- 4.11 These changes will set out a clear requirement for suppliers to focus on consumer benefits of smart metering and firm up the existing obligation for all smart meters to be installed and maintained in smart mode.

### **To introduce a time bound (90-days) recovery of smart meters in traditional mode**

- 4.12 We will amend the Operational Licence Condition in Supply Licence Conditions so that suppliers are required to take all reasonable steps to recover smart meters operating in traditional mode as soon as possible and within 90 days. The existing Operational Licence Condition requires suppliers to take all reasonable steps to install and maintain smart meters in smart mode but reporting shows that 8.3% of smart meters and advanced meters are smart meters operating in traditional mode

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<sup>23</sup> [Smart Metering Implementation Programme: DESNZ conclusions on 4G Communications Hub only exchange site visit DCC charging mechanism and legal changes - Smart Energy Code](#)

(as of the end of Q3 2025). Ofgem initiated compliance engagement against six large suppliers in summer 2024 and has monitored and engaged regularly with those suppliers throughout 2025.<sup>24</sup> Despite a 1.4 percentage point improvement in the proportion of smart meters and advanced meters that are smart meters in traditional mode across the first three quarters of 2025 this figure is still too high, with evidence suggesting that smart meters are being left in traditional mode for long periods of time, significantly longer than 90 days. . The current Licence Conditions do not explicitly focus on consumer outcomes and what suppliers should do when smart services are no longer maintained. This policy addresses this by strengthening the existing Licence Condition and the outcome it strives for while introducing amendments which provide consumer safeguards. The intended outcome is to drive a consistent consumer experience and transparent service level which will return benefits to consumers and restore consumer confidence in smart meters.

### **Pre-emptive replacement to avoid smart meters in traditional mode**

- 4.13 We will amend the Operational Licence Condition in Supply Licence Conditions so that suppliers are clear that in order to successfully meet the Licence Condition they need to have pre-emptively replaced smart metering assets ahead of the relevant communications service end-dates, in order to maintain smart services.
- 4.14 We will place a reporting obligation on the DCC to publish a ‘Statement of Availability of Communication Services’ to communicate the timing and scope of WAN impacts as early as possible and will be required to update that statement as necessary to reflect changes. This statement clearly set out dates from when the DCC will not be able to provide SMETS1 and 2G/3G communication services.<sup>25</sup> Beyond these dates, if the smart meters or their communication hubs are not replaced with 4G-enabled ones, the associated smart metering systems will lose connectivity and therefore the smart meter will not be operating in smart mode. For communication service agreements where the DCC is considering an extension, the DCC will refer to the end 2033 end-date beyond which the mobile network operators have confirmed they do not intend to offer 2G or 3G services.<sup>26</sup> The DCC will be required to make sure the statement is up to date, such as when extensions are confirmed. This will be an enduring obligation to capture all future WAN developments.

### **Summary**

- 4.15 Introducing a time-bound requirement on the recovery of smart meters in traditional mode and tightening licence conditions to ensure suppliers undertake pre-emptive replacements will improve consumers’ experience and therefore also perception of smart meters. Citizens Advice (Get Smarter, 2024) reported that nearly half (46%) of people who do not have a smart meter are put off by having heard negative

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<sup>24</sup> <https://www.ofgem.gov.uk/decision/ofgem-opens-compliance-engagement-british-gas-edf-eon-octopus-ovo-and-scottish-power-relating-smart-meter-obligations>

<sup>25</sup> [A joint statement on the sunseting of 2G and 3G networks and public ambition for Open RAN rollout as part of the Telecoms Supply Chain Diversification Strategy - GOV.UK](#)

<sup>26</sup> [A joint statement on the sunseting of 2G and 3G networks and public ambition for Open RAN rollout as part of the Telecoms Supply Chain Diversification Strategy - GOV.UK](#)

reports in the media and a fifth (21%) say they are put off as their friends or family have had bad experiences.<sup>27</sup> This indicates that demonstration of improved service will likely stimulate increased consumer confidence and demand for smart meters to support maximising installation volumes by the end of 2030.

### **Implementing deployment plans**

- 4.16 The policy will require that, via Standard Licence Conditions, suppliers submit annual deployment plans to Ofgem, setting out what domestic activities they will undertake each year to meet their new smart meter installations, operational and pre-emptive obligations. The annual milestones suppliers set out will be binding from 2027 onwards for new smart meter installations and pre-emptive replacements.
- 4.17 Deployment plans will help ensure that suppliers carry out the necessary planning and investment required early on to ensure all activities required to meet the 2030 installation and wider operational aims are achieved. Deployment plans will provide government and Ofgem with confidence that suppliers have credible plans to fulfil their obligations.
- 4.18 Deployment plans will provide Ofgem with the information needed to monitor progress and hold suppliers accountable including, where necessary, by taking action to ensure that suppliers meet their obligations. This will maximise our confidence that:
- suppliers continue domestic installations in support of the 2030 new installation obligation so that smart meter coverage is maximised and therefore consumer benefits are realised across the widest possible group of consumers.
  - suppliers undertake replacements to ensure that smart meters continue to operate in smart mode so that consumer detriment is avoided.
  - suppliers are planning appropriately to ensure that any smart meters which fall into traditional mode are recovered quickly.
- 4.19 Suppliers will be required to deliver the first deployment plan in 2026, to ensure continued progress towards supplier obligations and ensure continued investment. This deployment plan will be mandatory; however, the information will not constitute binding and enforceable annual milestones. This plan will be followed by a binding deployment plan by the end of 2026 for activity from 2027 onwards, where supplier determined milestones would be enforceable on an annual basis. These plans will cover new installations to the end of 2030 and pre-emptive replacements to 2033.
- 4.20 As part of the policy there will be certain minimum content requirements for the deployment plans to ensure consistency in what suppliers provide to Ofgem. Activity that suppliers must report on to Ofgem will include binding milestones for

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<sup>27</sup> [Get Smarter: Ensuring people benefit from Smart Meters - Citizens Advice, 2024](#)

new smart meter installations and pre-emptive replacement of SMETS1 meters and SMETS2 2G/3G communications hubs. A non-binding milestone that suppliers must report on will capture the total number of smart meters operating in traditional mode that will be recovered by the end of the year. Additionally, suppliers will be required to provide supporting information on installer capacity, demonstrating that they are able to meet their obligations. Suppliers will also be asked to set out plans for engaging consumers to encourage them to accept smart meter installation or replacement visits, including consideration of vulnerable customers.

- 4.21 Suppliers will be required to submit deployment plans to Ofgem each year and report annually on their progress against them. Suppliers will be able to request re-submission of the plans in-year to Ofgem to take into account, for example, any extraordinary events that may impact on their ability to meet their annual milestones. For this reason and the flexibility that an All Reasonable Steps obligation provides, suppliers will be bound to achieve annual milestones that will be determined by suppliers for new installations and pre-emptive replacements without any additional leeway.
- 4.22 To ensure deployment plans are of high quality and provide confidence that suppliers will meet their obligations whilst reducing the risk that suppliers may unduly backload activities towards the end dates in a way that may render obligations unachievable, there will be licence conditions that include:
- Providing Ofgem with a power to reject the deployment plan and to provide guidance to suppliers on when it might reject the plan.
  - Suppliers must provide rational justification to Ofgem where deviation from a straight-line trajectory (to the relevant self-determined milestone) is projected. A plan is not justifiable if it is not supported by, for example, evidence of sufficient workforce capacity.
  - An amendment to the definition of a milestone to become total number of installations and replacements that will be done each year rather than cumulative percentages.
  - All plans require approval from the supplier's Board, and sign-off from a senior Board-level representative to ensure accountability at Board level for the provision of a credible plan to Ofgem.
  - The supplier's Board will then be required to publish its milestones as percentages on its website, including progress against them, at the end of each year to ensure accountability to the public.
- 4.23 Milestones will be set separately for gas and electricity owing to the All Reasonable Steps obligations providing sufficient flexibility for suppliers to determine how they will meet them.
- 4.24 In addition, deployment plans will be required from all applicable energy suppliers that supply domestic premises, except for suppliers that supply gas or electricity, or

both, to fewer than 20,000 domestic gas meter points and 20,000 domestic electricity meter points. Exempting suppliers below this threshold helps minimise any regulatory burden on very small suppliers.

### **Clarification to existing Operational Licence Condition**

- 4.24 In addition to the core policy package this policy clarifies that, with respect to the non-domestic rollout, the existing Operational Licence Condition applies to smart meters in smaller non-microbusiness premises as well as microbusiness premises.<sup>28</sup> This resolves a discrepancy whereby this small group (less than one percent of all smart meters in traditional mode at the end of 2024) have been conflated with larger, energy intensive industries and are currently omitted from Licence Condition drafting. This is despite evidence that the needs of consumers at these smaller sites (with respect to a maintained smart service) are the same as other consumers and no evidence of different approaches to meter maintenance.

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<sup>28</sup> Defined as a non-microbusiness energy consumer within a designated premises. i.e. a site in electricity profile classes 1-4 or with gas consumption below 732 MWh per annum with a SMETS meter that is not a microbusiness energy consumer.

## 5. Summary of long-list and alternatives

- 5.1 In line with HM Treasury Green Book guidance, the longlist of options was identified through understanding the barriers to achieving the outcomes described above. This was achieved through long standing engagement with industry and by drawing on the best available evidence of the smart meter rollout to date.
- 5.2 Through this, we were able to understand the challenges and constraints faced by the current market, which in turn led to identifying clear Critical Success Factors to best progressing the rollout over the next few years. These are represented through the SMART objectives stated in the previous section, and against which we assessed the long list, to generate the short list of combined options outlined in Section 6.
- 5.3 In the longlisting process we considered a number of non-regulatory approaches to encourage action on both installations and ensuring that smart meters are operating in smart mode. These were:
- **Stronger messaging from Ofgem on expectations on suppliers.** For example, this could be carried out through Ofgem’s open letters to industry.
  - **Regular engagement with energy suppliers** on their challenges, and our expectations of them. This already is, and could continue to be, carried out by the Programme to understand rollout progress, particular challenges being faced by suppliers, and development of both metering assets and field force.
  - **League tables of supplier performance for both smart meter installations and smart meters in smart mode.** This would ensure that all suppliers can be tracked on the level of consumer service they and provide and acts as an additional incentive for suppliers.
- 5.4 The Smart Metering Implementation Programme is already either implementing or actively considering these measures and will continue to do so where these can support proposed regulatory approaches. However, these non-regulatory options were each rated as unacceptable against at least one of the SMART objectives set out in paragraph 3.2.
- 5.5 It was considered that these non-regulatory options would be insufficient to support the transition to Clean Power 2030 and Net Zero, and would risk building inequalities into the rollout. Low income and more vulnerable consumers are hardest to reach with campaigning and require particular efforts from energy suppliers, Smart Energy GB and consumer advocates to build the necessary trust that leads to booking an appointment. It would risk some consumers, particularly those less commercially attractive to suppliers, being left behind and unable to benefit from smart meters and the platform they provide for other benefits. The lack of long-term policy certainty would also create a challenging environment for industry, including the smart metering supply chain
- 5.6 We also considered alternative regulatory approaches, such as setting targets and tolerances (similar to under the 2022-2025 Targets Framework). As part of this, we

also considered a combined 'working smart meter' target in which the target would be defined as the percentage of a suppliers' portfolio that is both a smart meter and operating in smart mode.

- 5.7 There are potentially considerable benefits to a fixed targets regime, including clearer obligations for enforceability, greater certainty in outcomes, and being able to set targets that are both ambitious and achievable, grounded in the public good, rather than risking different approaches by different suppliers which may reflect individual commercial interests.
- 5.8 However, due to the greater variety of smart metering-related activities that suppliers will need to undertake in this period, and noting the differences between the portfolios of individual energy suppliers, our preferred approach at this stage is to provide the sector with flexibility to account for the different types of activity required, and the different peaks and troughs in this activity according to their individual metering portfolios.
- 5.9 An All Reasonable Steps obligation also provides greater flexibility to account for future improvements in technology, installation capacity and consumer demand, such as due to the greater availability and attractiveness of smart-enabled products and services, such as electric vehicle charging, than a fixed target to 2030.
- 5.10 We considered that there was a risk that a combined working smart meter target could detract from the current operational licence condition under which suppliers are required to take all reasonable steps to ensure that all their smart meters operate in smart mode and relating to which Ofgem is currently taking compliance engagement.
- 5.11 We will continue to review progress and will be prepared to bring in less flexible measures if we consider that insufficient progress is being made to ensure consumer benefits are being realised through completion of the rollout by the end of 2030 and improved meter operation.

## 6. Description of shortlisted policy options carried forward

- 6.1 The process for creating the shortlist followed the approach detailed in HMT Green Book and involved the following steps:
- **Assessment against SMART objectives:** Each longlisted option was evaluated based on how well it met the defined SMART objectives and was scored as either Not Applicable (N/A), Unacceptable, Acceptable, or Preferred.
  - **Exclusion of unacceptable options:** Any option marked as “Unacceptable” against one or more objectives was excluded from further consideration. All options that were assessed as at least ‘Acceptable’ against all SMART objectives were progressed from the longlist to the shortlist.
  - **Inclusion of ‘Do Nothing’ option:** The ‘Do Nothing’ option is also included in the shortlist to serve as the counterfactual.
- 6.2 This shortlisting process left the remaining measures to be carried forward, set out in the table below:

Option
<b>Operational meters: Ensuring Consumers Benefit from Operating Smart Meters</b> Introduce time bound recovery of smart meters in traditional mode (90 days) Introduce amendments through the DCC Licence and Standard Licence which require pre-emptive replacements before smart services end to be compliant with the Operational Licence Condition.
<b>2030 Domestic Rollout Obligation</b> An obligation to take all reasonable steps to reach 100% domestic smart meter penetration by the end of 2030.
<b>Deployment Plans: Monitoring Progress and Ensuring Accountability</b> Annual plan with non-binding milestones from 2026-2033 provided in 2026; binding milestones without tolerances for new installations and pre-emptive replacements from 1 Jan 2027. Strong messaging that suppliers must provide credible and robust plans and supplementary requirements in SLCs. Define milestone in the licence to be the total number of installations in a supplier’s portfolio and the total number of replacements in a supplier’s portfolio. All suppliers except energy suppliers classified as microbusiness suppliers are within scope for Deployment Plans. All suppliers are within scope for Deployment Plans (alternative)

### Operational meters

- 6.3 We consider that requirements on energy suppliers to maintain smart meter communications are vital to ensure continued positive consumer experience and consumer confidence in the smart meter rollout, and to enable the benefits of smart meters to be maximised. We therefore carried forward both the requirement for energy suppliers to address meters operating in traditional mode within 90 days

and amendments to the DCC Licence and Supply Licence to require pre-emptive replacements

### **Domestic installation obligation**

6.4 Maximising overall smart metering penetration ensures that as many customers as possible can access the benefits of smart metering, while also supporting the cost-effective delivery of Clean Power 2030 and Net Zero through integration of low carbon technologies and flexibility into Great Britain's energy system. To achieve this, we need to ensure energy suppliers continue to install new smart meters across Great Britain. We therefore considered it imperative that options carried forward maximise the overall penetration of smart meters by the end of 2030. We consider that requirements for energy suppliers to take all reasonable steps to complete the rollout by the end of 2030 will set a challenging but achievable trajectory for smart meter installations over 2026-2030.

### **Deployment plans**

6.5 We consider that deployment plans are necessary to provide increased confidence that energy suppliers will achieve continual progress in activities to support the rollout needed over the next decade, through enabling scrutiny of progress against delivery objectives. Options within deployment plans, included:

- Setting annual deployments plan with non-binding milestones from 2026-2033 provided in 2026; and with binding milestones from 1 Jan 2027 for installations and replacements.
- To not allow tolerances for the binding annual milestones in deployment plans.
- Milestones would be defined in the licence to be the total number of installations and the total number of replacements per year.
- Strong messaging that suppliers must provide credible and robust plans as well as supplementary requirements in SLCs.
- Energy suppliers categorised as microbusinesses exempt from providing deployment plans.
- All energy suppliers (including those categorised as microbusinesses) are in scope for providing deployment plans (alternative option).

## 7. Cost-Benefit Analysis

### Analytical approach

- 7.1 To reflect the inherent uncertainty and variation in the smart coverage trajectory that the policy package may achieve, we modelled the impacts associated with a range of smart coverage (from 85% to 100%, see 7.10) by the end of 2030.
- 7.2 The overall approach and scope of costs and benefits covered in the analysis is based upon the approach taken to the Programme’s 2019 cost-benefit analysis.<sup>29</sup> The full range of quantified costs and benefits impacted by preferred policy option can be seen below in Table 1. Modelled estimates for each of these cost and benefit areas were calculated using updated assumptions (where relevant) based on a range of evidence, including regular data collection from energy suppliers which informs the quarterly Official Statistics report<sup>30</sup> and both internal and external research commissioned by the Programme. The model assumptions represent a robust understanding of both the fixed costs of delivering the smart meter rollout and the incremental costs and benefits that are accrued once each smart meter is installed.

*Table 1: Monetised Costs and Benefits of the Smart Meter Rollout (impacted by the proposed policy package)*

Costs	Benefits
<ul style="list-style-type: none"> <li>• <b>Asset costs:</b> This includes the cost of smart metering equipment such as the meter and the Communications Hub.</li> <li>• <b>Installation costs:</b> This is the cost of installing smart meters which includes the costs of training installers, providing tools, managing installers in the field, appointment setting, insurance, legal, van and other back-office support costs.</li> <li>• <b>Operation and maintenance costs:</b> Consistent with the 2019 the analysis assumed an annual operations and maintenance cost for smart meters of 2.5% of the meter purchase cost.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Energy savings for consumers:</b> Households with smart meters have been consistently shown to use less energy than traditional metered households.<sup>32</sup> These savings are then multiplied by long-run variable costs of energy projections in line with Green Book guidance.</li> <li>• <b>Time savings for consumers:</b> Smart meters reduce the amount of time that consumers spend interacting with the energy system. For example, smart metered customers do not need to submit meter readings to receive accurate bills and can top up prepayment meters via apps or online.</li> </ul>

<sup>29</sup> Published cost-benefit analysis: [smart-meter-roll-out-cost-benefit-analysis-2019.pdf](#)

<sup>30</sup> [Smart meters in Great Britain, quarterly update September 2025 - GOV.UK](#)

<sup>32</sup> Domestic consumer energy savings are assumed to be 3% for electricity (credit and prepayment) and 2.2% for gas credit and 0.5% for prepayment. These are based on recent research findings: <https://www.gov.uk/government/publications/impacts-of-smart-metering-roll-out-on-household-energy-use>

<ul style="list-style-type: none"> <li>• <b>Costs incurred by energy suppliers and the wider industry (capex and opex)</b></li> <li>• <b>Pavement reading inefficiency:</b> As more traditional meters are replaced with smart meters, the geographical density of the remaining traditional meters decreases. It is therefore more time consuming and more expensive to read these traditional meters. In this analysis installing additional smart meters compared to the counterfactual creates a cost saving by reducing the pavement reading inefficiency.</li> <li>• <b>Energy costs of smart metering:</b> Energy consumption of smart meter equipment generates (traded) carbon emissions. These are accounted for and are deducted from carbon emission benefits generated by smart metering that occur through reduced energy consumptions. This uses data on energy consumed by equipment and multiplies it by the latest marginal emissions factors set out in HM Treasury Green Book supplementary guidance.</li> <li>• <b>Disposal costs:</b> These costs account for the cost of disposing of traditional meters that are replaced.</li> <li>• <b>Administration and familiarisation costs:</b> Administration and familiarisation costs are calculated using the Standard Cost Model.<sup>31</sup> Administration costs are defined as the costs incurred by industry in order to demonstrate their compliance or ongoing eligibility with any regulation. Familiarisation costs are the costs associated with reading and understanding new or amended regulatory requirements and guidance.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Avoided site visits:</b> Energy suppliers avoid costs from not having to send meter readers to obtain a meter reading.</li> <li>• <b>Reduced customer service enquiries:</b> There are reduced costs to energy suppliers from handling customer contacts about billing since smart meters send automatic readings.</li> <li>• <b>Improved debt handling:</b> Smart metering helps to avoid/reduce the impact of debt – both on the consumer and the energy supplier by (1) More frequent billing, (2) Earlier identification of debt and faster follow-up action, and (3) reduced bad debt charges and final debt write-off.</li> <li>• <b>Reduced cost to serve prepayment customers:</b> Smart meters decrease the costs that energy suppliers incur in serving customers with prepayment meters. These savings are due to a variety of reasons including the ability for payment mode to be switched without needing to install a new meter and a simpler system for the administration of payments.</li> <li>• <b>Customer switching benefits:</b> Smart meters enable customer switching benefits as automated readings can be remotely requested without needing a meter reader to visit properties and additionally the switching process is streamlined through the DCC.</li> <li>• <b>Change of tariff benefits:</b> For traditional meters, in order to switch a consumer from a single rate tariff to a multiple rate tariff (e.g. standard to Economy 7) or vice versa, a visit is required to adjust/change the meter. For smart meters, this visit will no longer be needed, as this action can be carried out remotely. This benefit area captures the avoided costs from energy suppliers not having to carry out that visit.</li> <li>• <b>Benefits to the electricity networks:</b> Electricity network operators benefit from smart meters by (1) smart meters provide detailed information across their network aiding with decisions around network reinforcement and reducing the cost</li> </ul>
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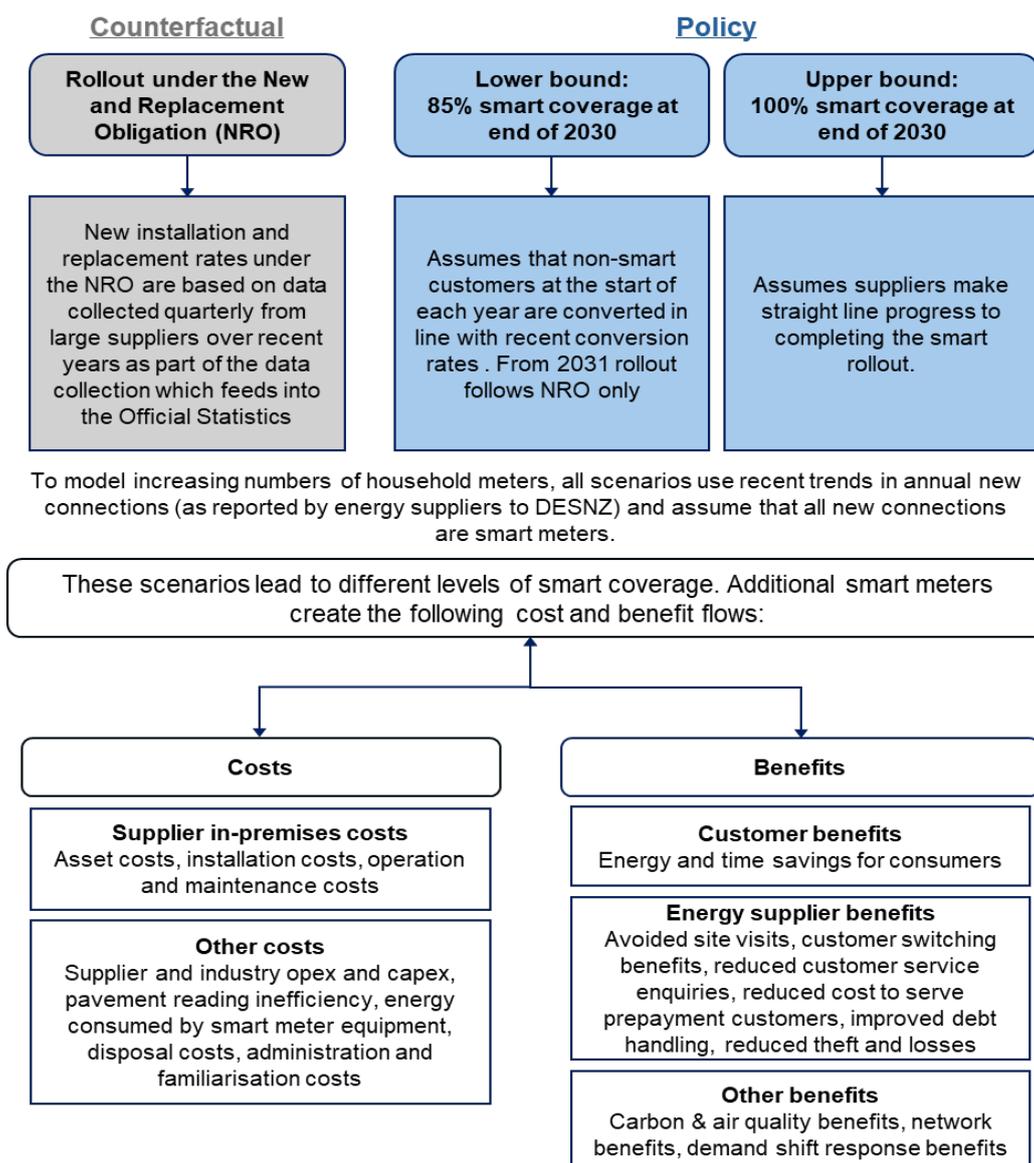
<sup>31</sup> [Business Impact Target: appraisal of guidance - assessments for Regulator-issued guidance](#)

	<p>to serve new connections and (2) smart meters enable a range of operational improvements due to their ability to respond to service requests to give additional information about outages and faults.</p> <ul style="list-style-type: none"> <li>• <b>Reduced theft and losses:</b> Smart metering has improved energy suppliers' ability to detect theft due to more granular consumption data. This enables quicker and better targeted activity that lowers overall theft levels. Benefits due to reduced losses are included as a reduction in the total amount of electricity being transported directly equates to lower losses alongside better data allowing improved management.</li> <li>• <b>Flexibility benefits:</b> Smart meters enable incentives for consumers to shift demand away from peak times when electricity is the most expensive to generate. Consumers shifting their usage can be seen in the take-up of time of use tariffs and demand flexibility schemes both of which require smart meters so suppliers know when electricity is being used.</li> <li>• <b>Carbon and air quality benefits:</b> A reduction in the amount of energy being used by consumers has a direct reduction in carbon emissions and an improvement in air quality.</li> </ul>
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7.3 The value of the quantified costs and benefits in this analysis are driven by the extent to which the policy measures appraised lead to additional smart meter installations relative to the counterfactual scenario, where installations only take place to meet the New and Replacement Obligation. All costs and benefits are calculated by applying a cost or benefit per meter.

7.4 This is captured in Figure 2 below, which sets out the modelling approach used to appraise this set of measures and describes how progression of the rollout under each scenario produces the associated cost and benefits. More detail on each of the cost and benefit categories included in Figure 2 can be found in Table 1 above, and a breakdown of monetised values for each can be found in Table 5 below.

**Figure 2: Diagram of the Cost-Benefit Analysis modelling approach**



## Counterfactual

7.5 The cost-benefit analysis compares the policy package against a status quo counterfactual scenario. This counterfactual takes account of broader plans to increase electrification of domestic energy use and reduce gas use, whereby energy saving assumptions reflect projected increases in electricity use per meter as well as a reduced use of gas on average per meter in the future. This counterfactual is made up of three core elements and represents a world where there are no additional regulatory changes once the previous 2022-25 Targets Framework expired at the end of 2025:

- **The smart meter rollout continues but only under the NRO.** Without intervention the only obligation that would apply to energy suppliers in installing smart meters would be the NRO. This requires that energy suppliers must take all reasonable steps to install smart meters in all new metering points and where meters require replacement, for example at the end of their asset life. As a result, smart coverage at the end of 2030 would be lower than

that achieved by this set of measures. The rollout profile as driven by the NRO was run through the Programme's cost-benefit analysis model to determine costs and benefits in the counterfactual scenario.

- **DCC and Standard Licence Conditions are not amended in support of minimising consumer risks from smart meters in traditional mode.** The analysis in this Final Impact Assessment assumes suppliers take pre-emptive action to prevent meters going into traditional mode (i.e. losing smart functionality) given the legally binding nature of the Operational Licence Condition. The strengthening of this in this policy therefore increases our confidence that suppliers will take the necessary pre-emptive action and that suppliers will execute the substantive meter and communications hub-only exchange programmes early enough to have concluded in the timeframes needed.
- **Communications hub-only exchange financing is done by individual suppliers financing mechanisms and not through a centralised funding arrangement.** We assumed the existing Operational Licence Condition is enough to require suppliers to pre-emptively replace affected 2G/3G communications hubs. This analysis therefore assumes that these 2G/3G communications hubs are exchanged without the implementation of a 4G centralised funding arrangement, with suppliers each seeking bespoke private financing.

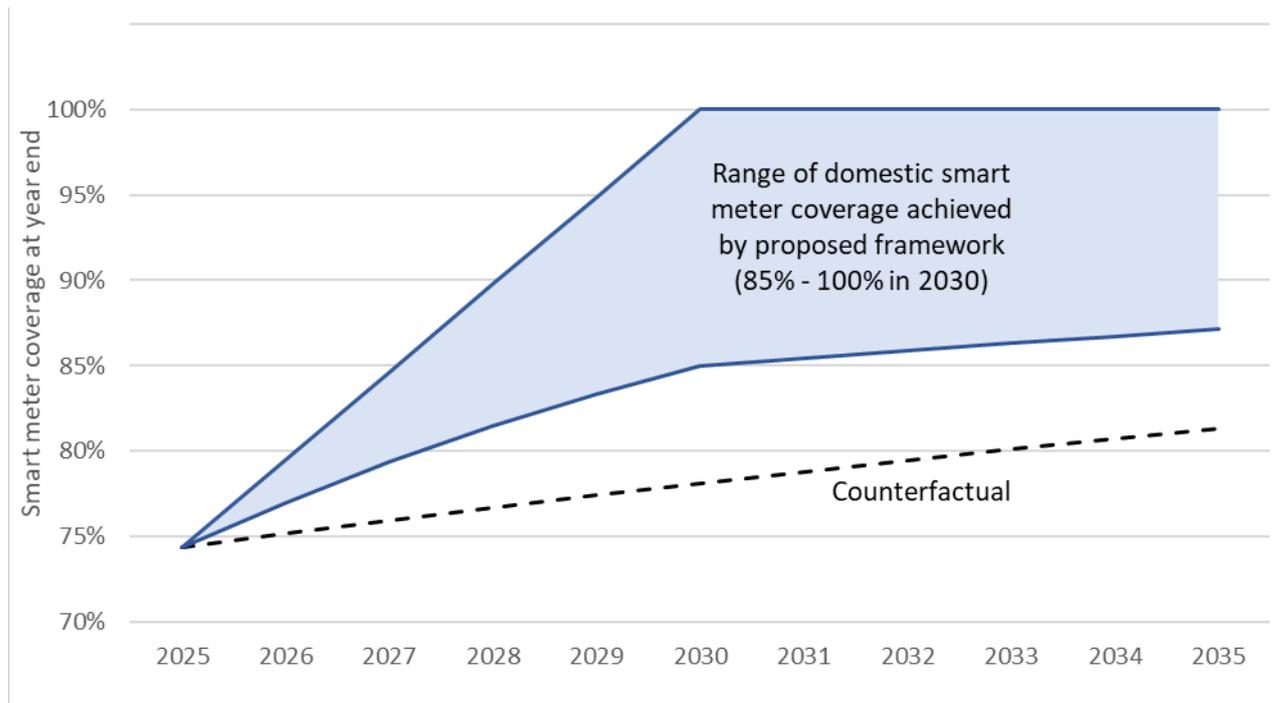
### **Counterfactual and policy scenario - smart coverage**

- 7.6 This analysis was carried out before published statistics on smart meter coverage at the end of 2025 were available. We have not estimated coverage at the end of 2025 and instead assumed that suppliers achieve their legally binding targets. This also represents a conservative approach in NPV terms. Should market wide installation progress at the end of 2025 be lower than targets, the impact of the policy would be larger in the scenario where 100% smart coverage is achieved at the end of 2030. This is because there would be a greater number of new installations compared to the NRO between 2026 and 2030.
- 7.7 While a lower starting point would mean that suppliers will need to carry out more installations of smart meters replacing traditional meters, these will not result in a significant increase in the overall work to be carried out over the framework period as this will be offset to some extent by a reduction in the number of meters needing replacement or maintenance visits. We have also set out a range of evidence on consumer demand (see 4.6) showing why additional consumer conversion should be possible.
- 7.8 In the counterfactual we project installations under the NRO using data provided by energy suppliers on the number of meters that are replaced at the end of their asset life and new smart metered connections.
- 7.9 The policy scenario has been modelled as a range to account for uncertainty and variation in the trajectory that may occur (85% to 100% at the end of 2030). This range is supported by both observed conversion rates, and attitudinal data showing

that a relatively small proportion of consumers currently state they would never take up smart meters.

7.10 The difference in smart coverage achieved by the counterfactual and the policy package can be seen below in Figure 3. Both policy scenarios result in a higher level of smart coverage than we would expect to see in the counterfactual where this package of measures is not introduced.

***Figure 3 - Range of Domestic End of Year Smart Coverage (%) (2026-2035)***



7.11 From 2031 onwards the rollout continues to progress at a slower rate in the 85% smart coverage scenario. This is because rollout reverts to being driven solely by the NRO (which is the case in the counterfactual for the whole appraisal period). This causes overall smart coverage to converge between the counterfactual and the policy scenario between 2031 and 2035.

7.12 Modelled volumes of smart and traditional meters are shown in Tables 2 and 3 below. Corresponding total energy savings, which is calculated by multiplying the number of smart meters by average energy consumption per meter and by assumed percentage energy savings, are shown in Table 4. Costs and benefits flow from these figures via the assumptions described in Table 1.

*Table 2: Modelled number of domestic smart meters operating in each year (millions, to nearest 100k)*

		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Policy - 100%	Electricity	24.1	25.9	27.7	29.6	31.5	31.7	32.0	32.3	32.6	32.9
	Gas	19.9	21.3	22.8	24.4	25.9	26.1	26.3	26.6	26.8	27.0
Policy - 85%	Electricity	23.4	24.3	25.2	26.0	26.7	27.1	27.5	27.9	28.3	28.7
	Gas	19.3	20.0	20.7	21.4	22.0	22.3	22.6	22.9	23.2	23.5
Counterfactual	Electricity	22.8	23.3	23.7	24.1	24.6	25.0	25.5	25.9	26.3	26.7
	Gas	18.8	19.2	19.5	19.9	20.2	20.6	20.9	21.3	21.6	22.0

*Table 3: Modelled number of traditional domestic meters operating in each year (millions, to nearest 100k)*

		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Policy - 100%	Electricity	6.2	4.7	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0
	Gas	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Policy - 85%	Electricity	7.0	6.3	5.7	5.2	4.7	4.6	4.5	4.4	4.3	4.2
	Gas	5.7	5.2	4.7	4.3	3.9	3.8	3.7	3.6	3.6	3.5
Counterfactual	Electricity	7.5	7.4	7.2	7.0	6.9	6.7	6.6	6.4	6.3	6.1
	Gas	6.2	6.1	5.9	5.8	5.7	5.5	5.4	5.3	5.2	5.1

*Table 4: Total modelled domestic energy consumption savings (GWh, to nearest 10)*

		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Policy - 100%	Electricity	2,690	2,900	3,120	3,340	3,560	3,620	3,680	3,750	3,810	4,020
	Gas	4,040	4,180	4,310	4,430	4,530	4,320	4,100	3,890	3,680	3,440
Policy - 85%	Electricity	2,600	2,720	2,830	2,930	3,030	3,100	3,170	3,230	3,310	3,510
	Gas	3,910	3,920	3,910	3,890	3,850	3,690	3,520	3,360	3,190	2,990
Counterfactual	Electricity	2,540	2,600	2,660	2,720	2,780	2,860	2,930	3,000	3,080	3,270
	Gas	3,820	3,750	3,690	3,610	3,540	3,400	3,260	3,120	2,970	2,790

## Approach to appraisal

- 7.13 The appraisal of this package of policy measures spans the 10-year period from 2026 to 2035. This is in line with the standard recommended appraisal period in the Green Book. The Green Book standard social discount rate of 3.5% has been applied to all costs and benefits within this analysis.<sup>33</sup>
- 7.14 The appraisal has been conducted using the Smart Metering Implementation Programme's Cost-Benefit Analysis model which was also used as the basis for annual Costs and Benefits Report to Parliament.<sup>34</sup>

## Net Present Value (NPV)

- 7.15 **Overall, this package of measures generates a NPV of between £599m and £1,861m (based on 85% to 100% smart coverage being achieved by the end of 2030).** These figures are discounted to 2026 and are in 2025 prices. The NPV range accounts for the uncertainty of what we anticipate suppliers will be able to achieve by the end of 2030. The lower bound assumes that suppliers continue installing smart meters at a pace that maintains current consumer conversion rates. To complete the rollout by the end of 2030 we would need to see an increase in conversion rates of consumers taking up smart meters, including groups of consumers who have not accepted the offer of a smart meter previously. The key driver of the NPV is the costs and benefits delivered by an increased rate of new installations under the new installation obligation that would not have been delivered in the counterfactual under the NRO. These results are in line with previous analysis which suggests that increases in smart coverage deliver a net benefit to society.

## Costs and benefits

- 7.16 The full breakdown of monetised costs and benefits over the 10-year appraisal period can be seen below. Table 5 shows the cost and benefit breakdown for the lower bound of 85% smart coverage as well as the upper bound of 100% smart coverage by the end of 2030.

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<sup>33</sup> [The Green Book \(2022\) - GOV.UK](#)

<sup>34</sup> [Smart Metering Implementation Programme - Cost-Benefit Analysis 2019](#)

Table 5 – Full Breakdown of Costs and Benefits for the Upper (100% Smart Coverage by the end of 2030) and Lower Bound Scenario (85% Smart Coverage Scenario). Discounted to 2026 and in 2025 Prices (£ millions)

	<b>Lower Bound (85% by end of 2030)</b>	<b>Upper Bound (100% by end of 2030)</b>
<b>Customer consumption and time savings</b>	<b>378</b>	<b>1,151</b>
Energy savings	305	928
Time savings	73	223
<b>Energy supplier benefits</b>	<b>433</b>	<b>1,321</b>
Avoided meter reading & inspection visits	137	417
Reduction in customer service and inbound enquiries	73	222
Reduction in prepayment cost to serve premium	61	186
Customer switching benefits	50	151
Change of tariff benefits	10	31
Reduction in theft and losses	41	124
Debt handling	62	190
<b>Other benefits</b>	<b>361</b>	<b>1,110</b>
Carbon & air quality benefits	190	572
Network benefits	29	97
Demand shift response benefits	143	441
<b>Total Benefits (£m)</b>	<b>1,172</b>	<b>3,581</b>
<b>In-premises costs</b>	<b>561</b>	<b>1,733</b>
Asset costs	225	694
Installation costs	298	923
Operation and maintenance costs	38	116
<b>Other costs</b>	<b>11</b>	<b>-14</b>
Supplier and industry Opex	71	213
Supplier and industry Capex	8	24
Pavement reading inefficiency <sup>6</sup>	-109	-372
Energy consumed by smart meter equipment	37	112
Disposal costs	2	6
Administration and familiarisation costs	4	4
<b>Total Costs (£m)</b>	<b>573</b>	<b>1,720</b>
<b>Total NPV (£m)</b>	<b>599</b>	<b>1,861</b>

7.17 In both the lower and upper bound scenarios, the key drivers of costs are those associated with metering equipment and costs of installing additional smart meters (as well as supplier and industry operating expenditure (Opex)). The installation and asset costs in the table above have a 9% optimism bias applied to them to account for uncertainty around the number and cost of additional smart meters not in smart mode resolutions that would be generated under additional installations in the policy. Full detail on the approach to calculating this level of optimism bias can

be found in Section 9 that covers risks and uncertainties, but there are reasons to believe this optimism bias uplift is an overestimate of the actual costs that will be observed.

- 7.18 As shown in Table 5, both the upper and lower bound smart coverage scenarios for this analysis deliver significant benefits to both consumers and suppliers. The primary benefit to consumers consists of energy usage reductions driven by changes in consumers' energy consumption behaviour from using a smart meter. Energy savings to consumers equate to between £305m and £928m. Smart meters also reduce the amount of time that consumers spend interacting with the energy system. For example, customers with smart meters are no longer required to submit meter readings to suppliers to ensure accurate bills and have more options for topping up prepayment meters that do not require them to leave their home. As a result, consumers will experience time saving benefits in the range of £73m to £223m. This set of policy measures generate between £378m and £1,151m in additional consumer benefits, which account for roughly a third of the total benefits delivered through this package of measures.
- 7.19 Beyond the additional benefits to consumers there are also benefits to suppliers. The analysis suggests supplier benefits in the region of £433m and £1,321m depending on the level of smart coverage achieved by these measures.
- 7.20 In addition to this, the increased smart meter coverage generates environmental benefits in the form of carbon and air quality benefits which amount to £190m-£572m. These benefits are accrued due to reduced domestic energy consumption which reduces the amount of carbon emissions generated by energy consumption in the domestic sector. These benefits help contribute to the UK commitment to achieve net zero carbon emissions by 2050 and the Clean Power by 2030 ambition.
- 7.21 Other benefits to the wider energy system include network benefits and demand shifting benefits. Demand shifting benefits amount to between £143m and £441m, whilst network benefits generate between £29m and £97m. Demand shifting benefits are generated because smart meters provide incentives for consumers to shift demand away from peak time towards off-peak periods when cheap, low-carbon generation is available, therefore bringing significant benefits to the electricity system. Smart meters also deliver network benefits by providing Distribution Network Operators with more data, allowing them to identify faults in the network, restore electricity supply more quickly when outages occur, and take better informed investment decisions.

## 8. Non-monetised costs and benefits

8.1 Whilst the smart metering programme's cost-benefit analysis model covers a wide range of costs and benefits of smart metering the package of measures also generates the following non-monetised costs and benefits:

- **The Operational Licence Condition amendments increase confidence that suppliers conduct timely replacement activity and address smart meters not in smart mode in a timely manner.** The requirement for suppliers to conduct these replacements as soon as possible and within 90 days ensures that consumers don't have to wait extended periods of time for suppliers to address smart meters not in smart mode. This will increase positive consumer sentiment of smart metering and improve the overall experience to consumers of the smart rollout. This requirement means, for some smart meters not in smart mode, resolutions should be brought forward by several weeks/months. The present value impacts of this will be small compared to the broader costs and benefits included in the appraisal.
- **Financial benefits of communications hub-only exchange centralised funding arrangements to medium and small suppliers who would otherwise have to access less favourable financing to fund this activity.** The introduction of centralised funding arrangements (which has been introduced via a separate consultation publication<sup>35</sup>) ensures small and medium suppliers can access more favourable financing than they would otherwise have had access to without policy intervention when funding this activity, and it ensures small and large suppliers have access to the same financing rate. This generates benefits to smaller suppliers by ensuring they are not disproportionately impacted by financing costs associated with the transition away from 2G/3G. Despite the significant positive impact this generates for smaller suppliers these benefits have been excluded from NPV calculations due to better financing costs in this instance being an economic transfer from lenders to small suppliers. Similarly, as there are no existing industry mechanisms for monitoring communications hub-only exchanges, the absence of the proposed centralised arrangements would mean that if an energy supplier replaces a communications hub and then the customer switches to a different energy supplier, the original supplier would bear the sunk cost of that installation. This could reduce competitiveness and discourage further exchanges, ultimately hindering the transition to 4G.
- **Providing certainty and clear objectives to the whole sector with regards to continuing the smart rollout at pace.** The new installation obligation to complete the rollout by the end of 2030 provides a clear incentive for the sector to invest in the required workforce and infrastructure. In a world where there were no further regulations following the end of the

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<sup>35</sup> [Smart Metering Implementation Programme: DESNZ conclusions on 4G communications hub-only exchange site visit DCC charging mechanism and legal changes - Smart Energy Code](#)

2022-25 Targets Framework, there would likely to be cuts to suppliers' installer workforce which would be costly and challenging to reverse going forward.

- **Greater innovation related benefits through higher levels of smart coverage.** Higher levels of smart coverage enable organisations and individuals across the system to realise additional innovation related benefits. Examples include the benefits to DNOs of power outage notification functionality that is enabled by smart meters and benefits to consumers through enhanced understanding of how smart meter data can be used to understand the potential benefits of smart Time of Use Tariffs.<sup>36</sup>

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<sup>36</sup><https://www.gov.uk/government/publications/non-domestic-smarter-tariff-comparisons-innovation-programme>

## 9. Risk and uncertainties

- 9.1 There is some uncertainty around the rate at which future installations may go on to become smart meters not in smart mode. This may be significant as driving higher levels of smart coverage through this policy package will result in some additional smart meters not in smart mode activity for suppliers.
- 9.2 We have made a cautious assumption that this rate will be 9%, the average proportion of smart and advanced meters that were smart meters not in smart mode over between Q4 2024 and Q3 2025.<sup>37</sup>
- 9.3 However, there are several reasons to expect that the rate at which new installations become and remain a smart meter not in smart mode for prolonged periods of time is likely to be much lower than this. Reasons for this include ongoing Ofgem compliance engagement, the introduction of Virtual WAN, best practice guidance for installers, and the Operational Licence Condition amendments in this policy package. Data from official stats suggest the proportion of smart meters not in smart mode has been falling over the last year, reaching 8% in the Q3 2025.
- 9.4 The optimism bias rate has been applied to present value discounted costs in line with HM Treasury Green Book supplementary guidance.<sup>38</sup> The optimism bias uplift is higher than the costs likely to be incurred as this assumes all smart meters not in smart mode require new metering equipment and an installer visit to the property. This is likely to be a significant overestimate as some smart meters not in smart mode resolutions are likely to be conducted remotely without the need for an installer visit or the replacement of existing metering equipment.
- 9.5 In this analysis deployment plans are assumed to increase our confidence in meeting trajectories required thus ensuring the delivery of smart metering benefits. This is achieved by monitoring and providing enforcement opportunities annually to ensure suppliers are kept on track for new installations and pre-emptive replacements, and by mitigating against incentives to backload activities towards the end of 2030 that a long-term obligation could give rise to.

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<sup>37</sup> [Smart meter statistics - GOV.UK](#). Within each individual report the proportion of meters not operating in smart mode can be found within the 'Meters in operation' section.

<sup>38</sup> [Green Book supplementary guidance: optimism bias - GOV.UK](#)

## 10. Small and Microbusiness Assessment (SaMBA)

- 10.1 Supplier data sourced from Fame<sup>39</sup> indicates that the majority of the 49 energy suppliers currently in operation in Great Britain, and which have obligations under the smart metering mandate, are medium to large businesses, based on the Better Regulation Framework definition of businesses that have more than fifty employees.<sup>40</sup> More detailed distinctions between domestic and non-domestic suppliers are made within this SaMBA depending on whether the policy changes apply to all suppliers or just suppliers with domestic obligations.
- 10.2 The assessment of supplier data which has fed into this SaMBA is based on matching Fame database information on employee numbers to a list of suppliers with obligations under the smart metering mandate. Where employee data was missing, or supplier names did not immediately match to a business in the Fame database, then additional data was sourced via Companies House. A detailed breakdown of suppliers by business size categorisation can be seen below in Table 6 (this table includes both domestic and non-domestic suppliers).

*Table 6 - Suppliers with smart obligations by number of employees and Better Regulation Framework classifications*

Business categorisation	Better Regulation Framework definition (number of employees)	Number of suppliers (domestic and non-domestic)	Proportion of total suppliers (domestic and non-domestic)	Contribution to total operating smart meters (domestic and non-domestic)
Micro	1-9	7	14%	<1%
Small	10-49	10	20%	<1%
Medium	50-499	19	39%	3%
Large	500+	13	27%	97%

- 10.3 Suppliers which are categorised as small and microbusinesses have played an active role in the smart meter rollout to date. While less than 1% of operating smart meters were with suppliers categorised as small/micro businesses at the end of 2024, suppliers meeting this definition have historically accounted for a greater proportion of operating meters. The decrease was largely a consequence of the energy crisis that occurred towards the end of 2021 when over 20 energy suppliers exited the supply market.

### Operational Licence Condition amendments – non-domestic inclusion

- 10.4 Amendments to the OLC and the introduction of centralised funding arrangements for communications hub-only exchanges for SMETS2 in the CSP Central and

<sup>39</sup> [Fame - Digital Marketplace](#)

<sup>40</sup> [Better regulation framework guidance 2023](#)

South regions will apply to all energy suppliers, regardless of their size, across both domestic and non-domestic sectors. Of the 49 suppliers with obligations under the smart metering mandate, 29 have purely non-domestic obligations. Of these suppliers, 4 are categorised as microbusinesses and 7 as small. The others are medium to large business (13 of which are categorised as medium and 5 large).

- 10.5 It is also important that measures to address non-functioning meters apply equally across the domestic and non-domestic sectors to ensure consistency in supplier performance and drive consumer benefits realisation in both sectors. The existing Operational Licence Condition already applies to both domestic and non-domestic suppliers and, therefore, applying these amendments to both is in line with precedent.

#### **4G communications hub-only exchange centralised funding arrangements**

- 10.6 The introduction of centralised funding arrangements<sup>41</sup> (and the subsequent methodology the department and Ofgem are jointly establishing to calculate a single reimbursement amount for successful visits under these arrangements<sup>42</sup>) is aimed at providing a level playing field for all suppliers to finance communications hub-only exchanges for SMETS2 in the CSP Central and South regions, as part of the 4G transition. Without this intervention, the replacement of 2G/3G communications hubs with 4G equivalents would rely on individual suppliers' financing arrangements. Small suppliers often face cash flow difficulties, making it difficult to absorb these costs as part of their Opex. They may also experience difficulties in accessing affordable borrowing because they do not have sufficient assets to secure the loan. As a result, lenders view these suppliers as a higher risk compared to larger suppliers, and therefore they are forced to borrow at higher interest rates. The introduction of 4G communications hub-only exchange centralised funding arrangements ensures the 17 suppliers with obligations under the smart mandate who are categorised as small and microbusinesses can access financing on equal terms with their larger counterparts.

#### **Deployment plans – small suppliers and microbusinesses**

- 10.7 When suppliers were last required to submit deployment plans as part of the 2018-20 Framework, suppliers categorised as either micro or small businesses were exempt. However, those plans were significantly more burdensome than the deployment plans in this policy. In addition, the 2022-25 Targets Framework required all suppliers regardless of size to submit targets and levels of achievement against those targets to Ofgem for each of the last four years. As small suppliers are already subject to obligations to undertake activities in relation to targets, continuing this arrangement under the new policy would ensure that small suppliers maintain rollout momentum in relation to smart meter installations. Exempting small suppliers would put less incentive on small suppliers to ensure they are on track to meet their licence obligations, which would risk creating an unbalanced level of service to consumers across the market. This ultimately disadvantages consumers who are serviced by small suppliers by reducing the

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<sup>41</sup> [Smart Metering Implementation Programme: DESNZ conclusions on 4G communications hub-only exchange site visit DCC charging mechanism and legal changes - Smart Energy Code](#)

<sup>42</sup> [4G communications hub-only exchange site visits: proposed methodology for calculating a centralised price | Ofgem](#)

scale of service provided and reducing the magnitude of potential smart benefits realised (these benefits can be seen in Section 7 of this Final Impact Assessment that covers the Cost-Benefit Analysis of this package of measures).

- 10.8 Under the new policy, energy suppliers that supply gas or electricity, or both, to fewer than 20,000 domestic gas meter points and 20,000 domestic electricity meter points, would be exempt from submitting deployment plans. This is because there is limited additional benefit to requiring energy suppliers categorised as microbusinesses to provide deployment plans, as they constitute only a small part of the market and their exemption is unlikely to confer a competitive advantage or an unlevel playing field.
- 10.9 Exempting microbusiness suppliers from submitting deployment plans helps minimise the regulatory burden on these suppliers as they will not have to prepare and submit these plans to the Regulator Ofgem. Exempting energy suppliers categorised as microbusinesses from submitting deployment plans aligns with the last framework that was subject to All Reasonable Steps.

# 11. Regulatory scorecard for preferred option

## Part A: Overall and stakeholder impacts

(1) Overall impacts on total welfare		Directional rating
<b>Description of overall expected impact</b>	The policy is expected to have a significant net-positive impact on societal welfare. The benefits associated with increased smart coverage such as reduced domestic consumer energy consumption and energy supplier benefits are expected to outweigh smart meter installation and other costs generated by this package of measures.	<b>Positive</b>
<b>Monetised impacts</b>	Total social NPV range: £599m (lower bound) and £1,861m (upper bound).  A full breakdown of monetised impacts that drive this range can be found in Table 5. The range represents the uncertainty around the level of smart coverage the package of measures will achieve. The analysis suggests that the greater the increase in smart coverage relative to the counterfactual the greater the net benefits.	<b>Positive</b>
<b>Non-monetised impacts</b>	Overall non-monetised impacts of the policy are positive. These impacts are described in more detail within the impact on businesses and household's sections of the regulatory scorecard.	<b>Positive</b>
<b>Any significant or adverse distributional impacts?</b>	The policy package is expected to have positive distributional impacts for both businesses and households. Full details on these can be found within their respective sections of this scorecard	<b>Positive</b>

(2) Expected impacts on businesses		
<b>Description of overall business impact</b>	This package of measures drives more smart meter installations relative to the counterfactual. This generates additional direct costs for suppliers which are passed on to households through energy bills (including for those on the price cap via the Smart Metering Net Cost Change (SMNCC) element of the price cap). We have assumed that all additional costs incurred by businesses in the rollout of smart metering due to this policy package are passed through to households as there is a clear expectation that suppliers will do this through the SMNCC. For completeness, we have presented estimates below which show the impact on businesses before we account for the pass-through of costs. Whilst there are substantive costs to businesses before accounting for pass-through, the analysis also suggests that suppliers do realise significant benefits from smart metering	<b>Negative</b>

	such as avoided meter reading and inspection visits which do partially offset some of the additional costs to them.	
<b>Monetised impacts</b>	<p>In terms of the direct costs incurred by businesses the overall impact is negative. However, after accounting for the passthrough of costs from businesses to households the impact will be neutral with a business NPV and EANDCB of £0. Business NPV (without pass-through): -£73m (lower bound) and -£189m (upper bound)</p> <p>Approx net financial cost to business (without pass-through): EANDCB of £32m-£95m</p> <p>A full breakdown of the NPV estimates can be seen in Section 7. In line with the Better Regulation Framework and Green Book guidance energy saving benefits are calculated using Long Run Variable Costs for NPV estimates, and Retail Fuel Prices for EANDCH estimates. Carbon and air quality benefits and demand shift response benefits are not assumed to accrue to businesses or households. The main costs that fall directly to energy suppliers initially (without pass-through) is the cost of smart metering assets and the costs of installing them. Installation costs are estimated to between £298m and £923m whilst the cost of the assets themselves are estimated to be between £225m and £694m. The range of both costs depend on the level of overall domestic smart coverage achieved by this package of measures.</p>	<b>Negative</b>
<b>Non-monetised impacts</b>	<p>The amendments to the Operational Licence Conditions (specifically the time bound replacement element) may bring forward the costs of replacement activity, for any meters that need replacing in order to restore smart services (noting that replacement is not always needed to restore smart services), that will increase the cost of such activity in present value terms to suppliers. This impact has not been monetised in the analysis on proportionality grounds given its small impact on overall NPV.</p> <p>The clear signalling of intent for the smart meter rollout with this package of measures seeks to give suppliers and the broader energy system the certainty to invest in smart metering. The clear ambition set out for achieving higher levels of smart coverage also helps prevent structural impacts of cuts to the installer and broader smart metering workforce.</p>	<b>Positive</b>
<b>Any significant or adverse distributional impacts?</b>	<p>The new All Reasonable Steps obligation to complete the rollout applies to all domestic energy suppliers. Given what suppliers are expected to achieve is determined by their self-set deployment plans (which account for the size of their overall portfolio) there is no reason to believe the obligation will have significant or adverse distributional impacts.</p> <p>The centralised funding arrangements (which have been consulted on separately through Ofgem) has a positive distributional impact on small energy suppliers by providing greater equity in the financing market when it comes to 2G/3G communications hub-only exchanges.</p> <p>The requirement to submit deployment plans to Ofgem will have a proportionately greater impact on smaller suppliers which is part of the reason for suppliers categorised as</p>	<b>Positive</b>

	microbusiness being exempt from submitting deployment plans.	
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### (3) Expected impacts on households

<b>Description of overall household impact</b>	The policy is likely to deliver a significant net benefit to households given the scale of energy and time consumption benefits delivered by an increase in overall smart coverage in the domestic sector.	<b>Positive</b>
<b>Monetised impacts</b>	<p>Household NPV (without pass-through): £341m - £1,039m</p> <p>Household NPV (with pass-through): £267m - £848m</p> <p>Approx net financial cost to household EANDCH (without pass-through): £7m - £21m</p> <p>Approx net financial cost to household EANDCH (with pass-through): £39m - £117m</p> <p>A full breakdown of the NPV estimates can be seen in Section 7. In line with the Better Regulation Framework and the Green Book guidance energy saving benefits are calculated using Long Run Variable Costs for NPV estimates, and Retail Fuel Prices for EANDCH estimates. Carbon and air quality benefits and demand shift response benefits are not assumed to accrue to businesses or households.</p> <p>The main cost that initially (without pass-through) falls directly to households is the cost of the energy consumed by smart metering equipment. The cost of the energy consumed by smart metering equipment are estimated to between £37m and £112m. The range in costs depends on the level of overall domestic smart coverage achieved by this package of measures.</p> <p>Costs to energy suppliers of installing and replacing meters are passed on to domestic households through higher energy bills (including for those on the price cap via the Smart Metering Net Cost Change (SMNCC) element of the price cap). These pass-through costs to households are reflected in the figures above.</p>	<p><b>Positive</b></p> <p><b>Based on likely household £NPV</b></p>
<b>Non-monetised impacts</b>	Beyond the broader monetised benefits of improved smart coverage, the Operational Licence Condition amendments are likely to lead to an improved and more consistent consumer experience with regards to the speed at which suppliers resolve smart meters not operating in smart mode. The 4G communications hub-only exchange centralised funding arrangements (for SMETS2 in CSP Central & South) also increases our confidence that suppliers will conduct exchange activity in a timely manner.	<b>Positive</b>

<p><b>Any significant or adverse distributional impacts?</b></p>	<p>Consumers are paying for the smart meter rollout through their gas and electricity bills. Without this policy intervention, the rollout is likely to slow down considerably. This would mean that those consumers yet to receive a smart meter would have to wait for a longer period of time before they are able to access the benefits of smart metering. Thus, these consumers would be paying for smart metering but not receiving the benefits that it offers. Furthermore, these customers would be unable to access new market offerings that are enabled by smart meters, for example, the Demand Flexibility Service launched by National ESO or tariffs that suppliers offer based on half-hourly energy usage data that require smart meters. This policy mitigates adverse distributional impacts on households, low-income groups or individuals by ensuring rollout momentum is maintained and enables substantial progress by the end of 2030.</p> <p>By ensuring that rollout momentum is maintained the policy package will have positive distributional impacts by ensuring that some consumers from lower socio-economic backgrounds (such as renters) and those with protected characteristics who are currently more likely not to have a smart meter, will receive the benefits of smart metering sooner. We have undertaken an equality assessment under the Public Sector Equality Duty to consider the impacts on groups with protected characteristics. This includes ensuring that appropriate mitigations are in place to reduce the risks of the policy causing any undue impacts to these groups.</p> <p>For instance, Ofgem’s Energy Consumer Satisfaction Survey (July-August 2025) found, at Great Britain level, that 66% of private renters and 66% of social renters owned a smart meter (either for gas or electricity) compared with 73% for homeowners.<sup>43</sup> Reaching these consumers will have a positive distributional impact because there is a higher proportion of consumers with protected characteristics in the private and social rented sectors. For example, the English Housing Survey (2023-24) found that 57% of social renters had at least one person with long-term illness and/or disability within the household, while 27% of private renters are from an ethnic minority background – proportionately higher than other tenure types.<sup>44</sup></p>	<p><b>Positive</b></p>
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**Part B: Impacts on wider government priorities**

Category	Description of impact	Directional rating
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<sup>43</sup> [Energy Consumer Satisfaction Survey: July to August 2025 | Ofgem](#)

<sup>44</sup> [English Housing Survey, 2023-2024.](#)

<p><b>Business environment:</b> Does the measure impact on the ease of doing business in the UK?</p>	<p>Beyond impacts to energy suppliers, it isn't anticipated that this policy package will have any broader impact on the UK business environment.</p> <p>An All Reasonable Steps (ARS) installation obligation will give suppliers greater flexibility compared to the previous 2022-25 Targets Framework to deliver the required activities in a way that best reflects their commercial and organisational priorities. As such, suppliers will be able to deliver their annual planned activities in a way that optimises their (current and future) portfolio of meters and broader commercial priorities while also meeting their policy requirements. Compared with the 2022-25 Target Frameworks the ARS obligation will have a positive impact on competition and innovation in the market given it provides suppliers with greater freedom to prioritise different types of activity in-year to optimise their operations, as long as they meet their obligations.</p>	<p><b>Neutral</b></p>
<p><b>International Considerations:</b> Does the measure support international trade and investment?</p>	<p>The policy is expected to have a neutral (neither positive or negative) impact on international trade and investment.</p>	<p><b>Neutral</b></p>
<p><b>Natural capital and Decarbonisation:</b> Does the measure support commitments to improve the environment and decarbonise?</p>	<p>The policy will help facilitate progress towards achieving the UK's 2050 Net Zero Target and GB's Clean Power by 2030 ambition. The National Energy System Operator's (NESO) recent Clean Power 2030 report recognised that smart meters are a key enabler for demand-side flexibility, and that 86-90% operational electricity smart meter coverage is needed to enable the Clean Power 2030 ambition.<sup>45</sup> Without government intervention internal modelling shows that only 78% smart meter coverage will be achieved by the end of 2030.</p> <p>The overall NPV for this package of measures contains significant monetised carbon reduction and clear air benefits.</p>	<p><b>Supports</b></p>

<sup>45</sup> See NESO (2024) <https://www.neso.energy/document/346791/download>

## 12. Monitoring and evaluation of preferred option

12.1 The compliance, and enforcement of these policies are not within the department's remit and will be a matter for the regulator, Ofgem. However, the department does have a role in monitoring and evaluating the contribution of these policies to the overall smart meter rollout and the experience of consumers.

12.2 SMIP has a dedicated monitoring and evaluation resource, which will carry out monitoring and evaluation of the interventions in this Final Impact Assessment. The Programme maintains a comprehensive Benefits Realisation and Evaluation Plan. Some of the Programme's ongoing (or recently concluded) activities include:

- **Monitoring of rollout progress and meters operating in smart mode**, via quarterly data on installations and meters operated from suppliers and administrative sources (including the DCC, ElectraLink, and Xoserve).
- **Monitoring of supplier costs through annual data collection**, including costs of installation visits and metering assets.
- **Monitoring of consumer benefits and consumer attitudes to smart meters**, via regular surveys and qualitative research carried out by the department, Ofgem, Smart Energy GB and others.
- **Impact evaluations of the consumer benefits from smart meters**, including analysis of household energy savings using the department's NEED database<sup>46</sup> and an in-progress cross-cutting impact evaluation of the rollout to date.
- **End-to-end process evaluation of the installation journey**, including mystery shopping of smart meter installations (including installation booking)<sup>47</sup> and ongoing monitoring of installer compliance with consumer engagement obligations.
- **Monitoring flexibility-related benefits** via the prevalence of smart and traditional time-of-use tariffs in the market, as well as tracking questions on attitudes towards and engagement with flexibility in regular DESNZ and Ofgem household surveys.
- **Holding regular bilateral meetings with energy suppliers** to identify issues, promote best practice, and monitor developments within the industry.

### Monitoring

12.3 We will monitor the effectiveness and impact of the interventions through a range of activities:

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<sup>46</sup> <https://www.gov.uk/government/publications/impacts-of-smart-metering-roll-out-on-household-energy-use>

<sup>47</sup> [Smart Meter Booking and Installation Process: evaluation](#)

- 12.4 We will continue to carry out detailed monitoring of rollout progress, including outcomes of installation visits, 4G transition activities and workforce resource. We will also continue to monitor suppliers' meter portfolios, including the proportion of meters operating in credit or prepayment and smart or traditional modes, and information related to benefits, including meters on time-of-use tariffs.
- 12.5 We are in the process of adapting our data collection from energy suppliers to include information about the full range of activities to be carried out to the end of 2030.
- 12.6 We will continue to monitor consumer attitudes towards smart meters, including satisfaction and benefits among owners, and demand among non-owners. Evidence sources include SEGB's biannual Outlook and Recontact surveys, and their annual Private Rented Sector tracker and Microbusiness tracker; Ofgem's biannual Energy Consumer Satisfaction Survey (ESAT), and the department's Public Attitudes Tracker (PAT) and Energy and Net Zero (ENZ) surveys.
- 12.7 We will continue to use data received from administrative sources (DCC, ElectraLink, XoServe) to provide additional insights.
- 12.8 We will continue to review ongoing monitoring activities to ensure that they provide the information we need to assess progress against all parts of the policy and the ongoing status of any risks to the rollout. Collectively this information will ensure the programme has comprehensive and timely insights into the ongoing delivery of the policy.

### **Impact and process evaluation**

- 12.9 The Programme maintains a multi-year evaluation strategy, and a dedicated Benefits and Evaluation team. Evaluation of the policy will be incorporated into the team's Benefits and Evaluation strategy.
- 12.10 The Programme is currently carrying out a large-scale and cross-cutting evaluation of the smart meter rollout, exploring attitudes of domestic and non-domestic consumers with and without smart meters, including attitudes to current smart-enabled services, impacts of experiencing issues with smart meters, and barriers for those yet to get a smart meter. Consumer research is being complemented by data collection with smart meter installers, including questions about the potential future trajectory of the current workforce. This will provide valuable baseline data immediately prior to implementation, to inform future evaluation.
- 12.11 The Programme is also carrying out a process evaluation project whose findings will align with the introduction of these interventions. The 'What Works' insight programme is working to identify the barriers and enablers to carrying out meter replacements and how consumer motivation barriers can be addressed via supplier communications. We anticipate this will provide early evidence of consumer acceptance of the activities required under this policy.

- 12.12 The Programme will take a future decision about how best to evaluate these interventions. Possibilities include a bespoke evaluation project or incorporating evaluation of this policy into a broader research project. Possible evaluation questions, based on the SMART objectives laid out in Section 3, are as follows:
- a) How successful were the new obligations in delivering short-term and enduring improvements in smart service for energy consumers?
  - b) To what extent did the obligations contribute to the end of 2030 completion of the domestic rollout of smart meters?
  - c) To what extent did the flexibility afforded to energy suppliers by the introduction of this framework enable them to optimise their activity in the context of their meter portfolios and broader commercial priorities?
  - d) How far did the new obligations succeed in delivering certainty to the whole sector to invest, plan and ensure sustainable growth through 2030 and beyond?
- 12.13 Some of the above research questions (a-b) could be addressed with monitoring data that the Programme already collects from energy suppliers, including data on new installations, maintenance and replacement activities, and smart meters operating in smart mode. Small-scale qualitative research with energy suppliers and other rollout delivery partners (such as Ofgem, the DCC, and third-party field force organisations) could help address research questions (c) and (d). Theory-based evaluation methods could assist in determining the contribution of the new obligations to smart metering activities through to the end of 2030 and separating what should be attributed to the new obligations from what should be attributed to external factors.

### **Value for money evaluation**

- 12.14 In 2024 the Programme published its first Cost and Benefits Report to Parliament, detailing the costs and benefits from the rollout of smart meters to the end of 2023. This reporting will be carried out annually and the second report was published in Summer 2025, which included costs and benefits of meters installed up until the end of 2024.<sup>48</sup>

### **Evaluation governance**

- 12.15 Evaluation governance, including oversight of the Benefits Realisation and Evaluation Plan is provided by the Programme's Cost and Benefits Review Board. A substantive update of the Benefits Realisation and Evaluation Plan is scheduled to follow the introduction of this policy and this will consider what additional monitoring and evaluation requirements are needed.

### **Post Implementation Review**

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<sup>48</sup> [Smart Metering 2025 Costs and Benefits Report.pdf](#)

12.16 A Post-Implementation Review of the smart metering Programme is planned to be carried out in 2035. This is 5 years after the conclusion of the installation obligations set out in this Final Impact Assessment, and a year after the end of the appraisal period in the 2019 CBA for the smart metering rollout. This programme-level Post-Implementation Review will involve reviewing the obligations set out in this assessment, as well as previous obligations used to drive the rollout. Conducting the Post-Implementation Review in 2035 will provide sufficient time to assess the full range of impacts (including longer term impacts accruing to consumers, suppliers and networks).

## 13. Minimising administrative and compliance costs for preferred option

- 13.1 Unlike with the previous 2022-25 Targets Framework for smart meter installations this new installation obligation is for suppliers to take all reasonable steps to complete the rollout by the end of 2030. Under this new obligation suppliers will face a lower administrative and compliance cost than they faced under the previous Targets Framework for the first year of the new obligation. This is because activities submitted in their deployment plans are non-binding until 2027 and therefore there will be limited compliance-based costs until at least 2027. This ensures suppliers will have time to plan and adapt to find ways in which they can minimise their administrative costs of complying with the new obligation. Additionally, as suppliers will be setting their own milestones, they will be able to calibrate to what works best for their portfolios to minimise compliance costs. As discussed in the SaMBA section, domestic suppliers categorised as microbusinesses will be exempt from producing and submitting deployment plans to Ofgem. This reduces the administrative and compliance costs to both suppliers and the regulator.
- 13.2 The introduction of centralised arrangements to fund communications hubs-only exchanged in the context of the 4G transition is likely to reduce administrative costs of pursuing alternative internal funding mechanisms for energy suppliers and as a result reduce the overall costs of complying with the Operational Licence Condition amendments. We consider that the provision of these funding arrangements will best deliver the benefits of centralisation, including making use of economies of scale and potential reduction of finance and administrative costs for all energy suppliers. This is particularly evident in the case of medium and small energy suppliers, where the centralised arrangements will facilitate the access to funding which would be difficult and more costly for them otherwise.
- 13.3 In line with the Better Regulation Framework, an estimation of the additional administrative and familiarisation costs that will fall to the industry as a result of this policy package has been calculated. A full explanation of the methodology behind these estimates can be seen in Table 1, which can be found in Section 7 of this Final Impact Assessment. In total, administrative and familiarisation costs are estimated to be approximately £4m.
- 13.4 Administrative costs make up the majority of these costs with familiarisation costs being comparatively small. This is because only a limited number of individuals within each relevant business or industry body are expected to review the new regulations and/or guidance, and the time required to do so is significantly lower than the estimated time needed for a typical supplier to complete and submit a deployment plan and for Ofgem to assess it. For example, based on academic estimates of non-fiction reading speeds<sup>49</sup> we expect it to take the average individual 0.17 hours<sup>50</sup> to familiarise themselves with the new domestic installation obligation. With an estimated 250 individuals across the industry<sup>51</sup> needing to

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<sup>49</sup> [How many words do we read per minute? A review and meta-analysis of reading rate - ScienceDirect](#)

<sup>50</sup> See Section 7 for more information on the cost benefit analysis methodology

<sup>51</sup> Based on an internal assumption

undertake this familiarisation activity, the total familiarisation time amounts to approximately 42 hours. This is substantially lower than the estimated 6-10 months of FTE time required for a typical supplier to complete and submit a deployment plan.

- 13.5 The estimated administrative and familiarisation costs are presented as a range to reflect uncertainty in the underlying assumptions. This range is informed by sensitivity testing of key high-impact variables, namely employee wage costs and the time required for a typical supplier to complete a deployment plan. Given that familiarisation costs represent a small proportion of total costs, it is proportionate not to undertake sensitivity testing on the assumptions underpinning these estimates.
- 13.6 To note these administrative costs are relative to a counterfactual in which there is no additional regulation on suppliers to install smart meters beyond the NRO. Under the previous Targets Framework all energy suppliers were subject to obligations to undertake activities in relation to targets to meet rollout obligations, such as providing annual data to Ofgem, and are therefore expected to already have some form of rollout plan in place. In addition, it is expected that suppliers would in any case incorporate their obligations into their internal business planning in order to deliver their obligations in a sensible and cost-effective way, so a deployment plan would be formalising that.

## 14. Growth impacts

- 14.1 This policy is expected to have a positive overall impact on economic growth by stimulating capital investment, creating jobs, fostering innovation, improving energy efficiency, and strengthening energy security. The National Energy System Operator's (NESO) recent Clean Power 2030 report recognised that smart meters are a key enabler for demand-side flexibility, and that 86-90% operational electricity smart meter coverage is needed to enable the Clean Power 2030 ambition. By incentivising energy suppliers to take all reasonable steps to complete the rollout of smart meters by the end of 2030, the policy package will unlock significant capital investment of £225m - £694m.
- 14.2 This policy package will also encourage industry to invest in and retain the current installer workforce of c.6,300, where we also expect an additional c.1,000 installers will be required by 2028/29. The detailed half-hourly consumption data generated by smart meters enables innovative solutions in the energy sector that reward consumers for shifting usage to off-peak times or periods of renewable energy surplus. This enhances system-wide efficiency, reduces energy costs for consumers, and helps optimise grid operations. Furthermore, by facilitating a more flexible and responsive energy system, this policy framework enables scaling up of renewables and reduces dependence on imported fossil fuels, giving us greater control of our energy security. The policy package is expected to deliver bill savings on average across the period 2026-2035.

# Declaration

Department:

Contact details for enquiries:

Minister:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed:



Date:

## Summary: Analysis and evidence

Price base year: 2025

PV base year: 2026

	<b>Policy Scenario</b>
<p><b>Net present social value</b> (with brief description, including ranges, of individual costs and benefits)</p>	<p>The package of measures generates a NPV in the range of £599m-£1,861m, with the range being driven by the level of smart coverage achieved.</p> <p>The All Reasonable Steps obligation to complete the domestic rollout by the end of 2030 could result in 100% smart coverage by the end of 2030. However, the policy scenario has been modelled as a range to account for uncertainty and variation in the trajectory that may occur, given the nature of the All Reasonable Steps obligation. As a result, a lower smart coverage of 85% at the end of 2030 has also been modelled and is the basis for the lower bound of appraisal outputs. Any additional increase in smart coverage relative to the counterfactual leads to an increase in NPV and therefore the package of measures generates significant net benefits regardless of the exact smart coverage achieved.</p> <p><b>Benefits</b></p> <p>A significant share of the benefits accrues to energy suppliers, primarily through increased efficiency in the retail energy market enabled by the widespread deployment of smart meters. These efficiencies include reduced need for site visits, customer switching benefits, and other improvements. Supplier benefits amount to £433m-£1,321m.</p> <p>Energy consumers also incur significant benefits through the form of time savings spent from not providing traditional meter readings and general reduced interaction with the energy system, as well as energy consumption savings delivered by smart metering. Consumer benefits amount to £378m-£1,151m.</p> <p>Total benefits amount to £1,172m-£3,581m.</p>

	<p><b>Costs</b></p> <p>The key driver of costs are the costs associated with metering equipment and installation costs of installing additional smart meters, as well as supplier and industry operating expenditure.</p> <p>Asset costs amount to £225m-£694m, installation costs are £298m-£923m, and supplier and industry operating expenditure totals £71m-£213m.</p> <p>The installation and asset costs have a 9% optimism bias applied to them to account for uncertainty around the number and cost of additional smart meters not in smart mode resolutions that would be generated under additional installations in the policy. A full explanation of the optimism bias level applied is detailed in Section 9.</p> <p>A large proportion of costs are offset by a reduction in the increased costs of reading the large number of traditional meters in the counterfactual. Pavement reading inefficiency costs amount to between -£109m to -£372m. This is a negative cost for this policy package (e.g. a cost saving). This is because the peak of this inefficiency occurs when there are near equal numbers of traditional and smart meters. Beyond this point, any policies that increase the rate of smart meter rollout leads to a cost saving for suppliers as fewer inefficient activities relating to traditional metering need to take place.</p> <p>All costs except the costs incurred by the energy consumption of smart metering equipment are incurred directly by suppliers. Suppliers are however expected to pass these costs on to households through the Smart Metering Net Cost Change (SMNCC) as part of Ofgem's price cap. For cost estimates accounting for the pass-through effects to households please see the regulatory scorecard in Section 11. Costs due to the energy consumption of smart metering equipment, which fall to consumers, amount to between £37m and £112m.</p> <p>Total costs amount to between £573m-£1,720m.</p> <p>A full breakdown of costs and benefits can be seen in Table 5, in Section 7.</p>
<p><b>Public sector financial costs</b> (with brief description,</p>	<p>No costs are incurred by the public sector.</p>

including ranges)	
<b>Significant un-quantified benefits and costs</b> (description, with scale where possible)	<p><b><u>Significant unquantified costs and benefits include:</u></b></p> <ul style="list-style-type: none"> <li>• The financial benefit to small and medium suppliers of a communications hub-only exchange centralised price. Without the centralised price small and medium suppliers would have had to access less favourable financing to fund 2G/3G communications hub exchange activity, creating market equity issues. This generates benefits to small and medium suppliers, but these have been excluded from NPV calculations due to better financing costs in this instance being an economic transfer from lenders to small suppliers.</li> <li>• Providing certainty and clear objectives to the whole sector with regards to accelerating the smart rollout. In a world where there are no further regulations on smart meter installations beyond the NRO following the expiration of the Targets Framework at the end of 2025 there is likely to be cuts to suppliers' installer workforce which would be costly and challenging to reverse going forward.</li> </ul>
<b>Key risks</b> (and risk costs, and optimism bias, where relevant)	<p>There is some uncertainty around the rate at which future installations may go on to become smart meters not in smart mode, as accelerating the rate of new installations will create some additional smart meters not in smart mode. There are several reasons to expect that the rate at which new installations become and remain a smart meter not in smart mode for prolonged periods of time is likely to be much lower than the latest smart meters not in smart of 8.3% recorded in the Q3 2025 statistics. This is due to ongoing Ofgem compliance engagement, the introduction of Virtual WAN, best practice guidance for installers, and the Operational Licence Condition amendments in this policy package. To be conservative with the uncertainty around the additional activity and metering equipment required to resolve smart meters not in smart mode an optimism bias uplift of 9% has been applied to total asset and installation costs within the cost-benefit analysis. This is likely to be a significant overestimate as some smart meter not in smart mode resolutions are likely to be conducted remotely without the need for an installer visit or the replacement of existing metering equipment.</p>
<b>Results of sensitivity analysis</b>	<p>As noted above, the policy has been modelled as a range to account for uncertainty and variation in the smart coverage trajectory that suppliers will achieve given the obligation on suppliers is subject to All Reasonable Steps.</p>