ANNEX 6: Electricity Bill discount scheme

Regulatory scorecard

Part A: Overall and stakeholder impacts

1. Overall impacts on total welfare

Category	Description of impact	Directional rating
Description of overall expected impact	**Direct Transfers** **A transfer from all electricity consumers to households closest to new transmission network infrastructure** – Funding this policy via an obligation on electricity suppliers, which we expect will be passed onto their customers, will result in a transfer from all electricity consumers to households closest to new transmission network infrastructure. **Direct Costs** **Familiarisation costs** – Transmission Owners (TOs), developers, communities closest to new infrastructure and electricity suppliers incur time costs to familiarise themselves with the bill discount scheme. **Administration costs** – Government, the scheme administrator, the regulator, electricity suppliers, TOs, developers and Local Authorities may incur costs to administer bill discounts. **Indirect Costs** **Earlier network investment costs –** If this policy reduces delays to network build, network investment will occur sooner than previously planned relative to the baseline scenario. This would result in an increased cost to business, due to increased investment in infrastructure over the appraisal period. **Indirect Benefits** **Emissions savings** – If this policy reduces delays to network build and decreases network constraints, there will be emissions savings. This is because renewable generation is usually curtailed (switched off) whilst non-renewable generation is usually switched on to meet demand. **Reduced network constraint costs** – If this policy reduces delays to network build, this will reduce congestion on the network and reduce constraint costs, resulting in savings for electricity consumers. This is because constraint costs are part of balancing charges, which make up a portion of a household's electricity bill.	**Neutral**
Monetised impacts	The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. As such the monetised impacts of the scenarios presented in this Impact Assessment are for purely illustrative purposes to demonstrate the potential scale of the impacts under different policy scenarios, while leaving room for further policy development and analysis which will be the detailed in the Impact Assessment (IA) accompanying introduction of secondary legislation.	**Uncertain**

Non-monetised impacts	**Costs** **Costs associated with network infrastructure being in place sooner** – If this policy reduces delays to network build, communities closest to new electricity transmission infrastructure may face costs associated with network infrastructure such as disruption costs, noise impacts, and landscape impacts (this list is not exhaustive), sooner. These costs would still be incurred in the baseline scenario, but they may be incurred sooner if this policy reduces delays to network build. **Benefits** **Shorter network connection times for new low carbon generation** – Enabling works must be completed before a new generation asset can connect to the electricity network. If this policy reduces delays to network build including enabling works, this could allow new low carbon generation to connect to the network more quickly, supporting households and businesses across the country in achieving cheaper, more secure and low carbon energy generation. **Greater buy-in to the energy transition** – This policy aims to ensure communities are involved and considered in the energy transition, which may increase buy-in. **Spill-over benefits** –There may be spill-over benefits due to this policy. For example, earlier network investment may enable wider benefits to the economy. **Potential supply chain benefits** – If this policy reduces delays to network build, there may be supply-chain benefits for TOs and developers if they are able to access materials sooner. **Lower legal costs** –Communities closest to new infrastructure may have lower legal costs due to this policy if they feel they are benefitting adequately from transmission network infrastructure being sited in their vicinity and are not required to legally challenge the infrastructure as a result. **Increased confidence in decision-making** – TOs and developers may have increased confidence in decision-making due to the assumption that bill discounts could help to improve community acceptability.	**Neutral**
Any significant or adverse distributional impacts?	Initial distributional analysis suggest that recipients of the bill discount scheme are more likely to live in lower income areas and so the delivery of a bill discount scheme could enable positive economic outcomes for these areas. However, given the current stage of policy development this analysis is uncertain, and further analysis will be the detailed in the IA accompanying the secondary legislation. Further discussion of the distributional impacts of the policy can be found in the costs and benefits section “Distributional Impacts”	**Uncertain**

2. Expected impacts on businesses

Category	Description of impact	Directional rating
Description of overall business impact	**Costs** **(Direct Transfer) Bill discount** – The scheme will be funded by an obligation on electricity suppliers. They are expected to recoup their costs by passing them onto their customers through their bills. This	**Uncertain**

	impact assessment assumes all costs will be passed onto billpayers. As such, all GB electricity consumers (including households) will fund the scheme through their electricity bills. **Earlier network investment costs** – If this policy reduces delays to network build, network investment will occur sooner which will increase investment over the appraisal period. This cost is initially borne by transmission owners, but they will pass on most of the costs to consumers via allowed revenue on bills over the recovery period (45 years). **Familiarisation costs** – Transmission Owners (TOs), developers, communities closest to new infrastructure and electricity suppliers, and Local Authorities could incur time costs to familiarise themselves with the bill discount scheme. **Administration costs** – Government, the scheme administrator, the regulator, electricity suppliers, TOs and developers may incur costs to administer bill discounts. **Benefits.** **Reduced network constraint costs** – If this policy reduces delays to network build, this will reduce congestion on the network and reduce constraint costs, resulting in savings for electricity consumers. This is because constraint costs are part of balancing charges, which make up a portion of a household's electricity bill.	
Monetised impacts	The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. As such the monetised impacts of the scenarios presented in this Impact Assessment are purely for illustrative purposes to demonstrate the potential scale of the impacts under different policy scenarios, while leaving room for further policy development and analysis which will be detailed in the IA accompanying introduction of secondary legislation.	**Uncertain**
Non-monetised impacts	**Costs** N/A **Benefits** **Shorter network connection times for new low carbon generation** – Enabling works must be completed before a new generation asset can connect to the electricity network. If this policy reduces delays to network build including enabling works, this could allow new low carbon generation to connect to the network more quickly, supporting households and businesses across the country in achieving cheaper, more secure and low carbon energy generation.	**Positive**
Any significant or adverse distributional impacts?	Small electricity suppliers may experience increased administrative burden to deliver the bill discount. To mitigate this impact we will ensure that the scheme administrator will carry out all coordination, recipient identification, data matching, monitoring, customer service and processing of manual applications. We have regular supplier delivery groups to allow for their input into the development of the scheme. Reconciliation mechanisms for deliveries of bill discounts are well developed and so suppliers will not experience any direct additional costs due to the scheme.This is explored in more detail in the SaMBA.	**Uncertain**

3. Expected impacts on households

Category	Description of impact	Directional rating
Description of overall	**Costs**	**Uncertain**

household impact	**(Direct Transfer) Bill discount** – The scheme will be funded by an obligation on electricity suppliers. They are expected to recoup their costs by passing them onto their customers through their bills. This impact assessment assumes all costs will be passed onto billpayers. As such, all GB electricity consumers (including households) will fund the scheme through their electricity bills. **Benefits** **(Direct Transfer) Bill discount** – The main benefit received by households in communities closest to the new infrastructure will be the bill discount. **(Indirect Benefit) Constraint cost savings** – If this policy reduces delays to network build, this will reduce congestion on the network and reduce constraint costs, resulting in savings for electricity consumers. This is because constraint costs are part of balancing charges, which make up a portion of electricity bills. Initial analysis suggests the average annual net impact of the illustrative scenarios on households could be relatively small or net neutral if constraint cost savings are realised. However, this analysis is uncertain and dependent on an assumed relationship between improved community acceptability of network infrastructure, prevention of delays to network build and network constraint costs. This is highly uncertain because the estimated acceptance rate may not feed through to preventing delays 1:1 and there is a possibility that delays may not be prevented at all.	
Monetised impacts	The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. As such the monetised impacts of the scenarios presented in this Impact Assessment are purely for illustrative purposes to demonstrate the potential scale of the impacts under different policy scenarios, while leaving room for further policy development and analysis which will be the detailed in the IA accompanying introduction of secondary legislation.	**Uncertain**
Non-monetised impacts	**Costs** **Costs associated with network infrastructure being in place sooner** – If this policy reduces delays to network build, communities closest to new infrastructure may face costs associated with network infrastructure such as disruption costs, noise impacts, and landscape impacts (this list is not exhaustive), *sooner*. These costs would still be incurred in the baseline scenario, but they may be incurred sooner if this policy reduces delays to network build. **Familiarisation costs** –Communities closest to new infrastructure could incur time costs to familiarise themselves with the bill discount scheme. **Benefits** **Lower legal costs** - Communities closest to new infrastructure may have lower legal costs due to this policy if they feel they are benefitting adequately from transmission network infrastructure being sited in their vicinity and are not required to legally challenge the infrastructure as a result. **Greater buy-in to the energy transition** – This policy aims to ensure communities are involved and considered in the energy transition, which may increase buy-in.	**Positive**

Any significant or adverse distributional impacts?	Low income: evidence suggest that recipients of the bill discount scheme are more likely to live in lower income areas and so the delivery of a bill discount scheme could enable positive economic outcomes for these areas. We expect that transmission network infrastructure will be predominantly built in rural areas where residents are more likely to be "white" and over 65. Further discussion of the distributional impacts of the policy can be found in the costs and benefits section "Distributional Impacts"	**Positive**

Part B: Impacts on wider Government priorities

Category	Description of impact	Directional rating
Business environment: Does the measure impact on the ease of doing business in the UK?	We do not expect primary legislation to have any significant impact on the business environment of the UK. However, if materialised an improvement in community acceptability towards network infrastructure and a reduction in opposition could improve the attractiveness of investment in transmission infrastructure. The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. Any further impacts on the UK business environment will be considered as part of the Impact Assessment accompanying introduction of secondary legislation.	**Uncertain**
International considerations: Does the measure support international trade and investment?	We do not expect primary legislation to have any significant impact on the international trade of the UK. However, an improvement in community acceptability towards network infrastructure and a reduction in opposition could improve the attractiveness of investment in transmission infrastructure. The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. Any further impacts on international trade and investment will be considered as part of the Impact Assessment accompanying introduction of secondary legislation.	**Uncertain**
Natural capital and decarbonisation: Does the measure support commitments to improve the environment and decarbonise?	If the policy reduces delays to network build, this will feed through into reduced thermal constraints on the transmission network. These thermal constraints lead to increased greenhouse gas emissions as fossil fuels are then used to generate electricity rather than renewable sources. Our analysis suggests that up to 1.05 MtCO2 could be saved through reduced thermal constraints, dependent on the successfulness of the policy in reducing delays to network build. However, it is difficult to isolate the impacts of this policy as there are a wide range of measures designed to accelerate transmission network build which are currently being undertaken. Accelerated network build will also enable more renewable generation sources to connect onto the grid which will increase our renewable generation capacity – this impact has not been quantified.	**May work for**

Summary: Analysis and evidence[1]

Price base year: 2025

Present Value base year: 2026

	Options			
Category	**Scenario 1:** Electricity Bill Discount of £10,000 over 10 years (£1,000 per year) per property located within 500m of new transmission network infrastructure *including* non-domestic properties and new build properties.	**Scenario 2:** Electricity Bill Discount of £5,000 over 10 years (£500 per year) per property located within 300m of new transmission network infrastructure *excluding* non-domestic properties and new build properties.	**Scenario 3:** Electricity Bill Discount of £2,500 over 10 years (£250 per year) per property located within 300m of new transmission network infrastructure *excluding* non-domestic properties and new build properties.	**Scenario 4:** Electricity Bill Discount of £1,000 over 10 years (£100 per year) per property located within 200m of new transmission network infrastructure *excluding* non-domestic properties and new build properties.
Net present social value (with brief description, including ranges, of individual costs and benefits)	**NPSV: £(-1260 – 2300million)** **Costs[2]: £1460 – 2700million** **Benefits: £1450 – 3760million** Transfers: £1450 – 2120million **Direct Costs:** Familiarisation: <£10million Industry Administration: <£10million Government Administration: <£10million **Indirect Costs:** Earlier Network Investment: £0 – 570million Indirect Benefits: Constraint cost savings: £0 – 1320million Emissions savings: £0 – 310million	NPSV: £(-680 – 1670million) Costs: £290 – 970million Benefits: £290 – 1960million Transfers: £290 – 420million **Direct Costs:** Familiarisation: <£10million Industry Administration: <£10million Government Administration: <£10million **Indirect Costs:** Earlier Network Investment: £0 – 540million Indirect Benefits: Constraint cost savings: £0 – 1250million Emissions savings: £0 – 290million	**NPSV: £(-590 – 1510million)** **Costs: £150 – 730million** **Benefits: £140 – 1660million** Transfers: £140 – 210million **Direct Costs:** Familiarisation: <£10million Industry Administration: <£10million Government Administration: <£10million **Indirect Costs:** Earlier Network Investment: £0 – 510million Indirect Benefits: Constraint cost savings: £0 – 1170million Emissions savings: £0 – 280million	**NPSV: £(-510 – 1400million)** **Costs: £30 – 540m** **Benefits: £30 – 1440million** Transfers: £30 – 40million **Direct Costs:** Familiarisation: <£10million Industry Administration: <£10million Government Administration: <£10million **Indirect Costs:** Earlier Network Investment: £0 – 490million Indirect Benefits: Constraint cost savings: £0 – 1130million Emissions savings: £0 – 270million
	Transfers			

[1] This summary table uses a 10 year appraisal period, for consistency with other measures included in this IA. The monetised impacts analysis that we have completed in section 4 “Costs and Benefits” uses a 16 year appraisal period.

[2] Here costs and benefits are inclusive of transfers. Transfers are a cost to ineligible recipients and a benefit to eligible recipients

	A transfer from all electricity consumers to communities closest to new transmission network infrastructure – The proposed scheme would be funded by an obligation on electricity suppliers. They are expected to recoup their costs by passing them onto their customers through their bills. This impact assessment assumes all costs will be passed onto billpayers. Funding this policy via electricity bills will result in a transfer from all electricity consumers to communities that are living closest to new transmission network infrastructure. These have a neutral impact on NPSV **Costs** **Earlier network investment costs –** If this policy reduces delays to network build, network investment will occur sooner which will increase investment over the appraisal period. **Familiarisation costs** – Transmission Owners (TOs), developers, communities living closest to new infrastructure, electricity suppliers, and Local Authorities could incur time costs to familiarise themselves with the bill discount scheme. **Administration costs** – Government, the scheme administrator, the regulator, electricity suppliers, TOs and developers may incur costs to administer bill discounts. **Benefits** **Reduced network constraint costs** – If this policy reduces delays to network build, this will reduce congestion on the network and reduce constraint costs, resulting in savings for electricity consumers. This is because constraint costs are part of balancing charges, which make up a portion of consumer (household and business) electricity bills. **Emissions savings** – If this policy reduces delays to network build and decreases network constraints, there will be emissions savings. This is because renewable generation is usually curtailed (switched off) whilst non-renewable generation is usually switched on to meet demand.
Public sector financial costs (with brief description, including ranges)	The Government will incur costs to deliver bill discounts. For our scenarios these are estimated to be <£10m
Significant un-quantified benefits and costs (description, with scale where possible)	**Shorter network connection times for new low carbon generation** – Enabling works must be completed before a new generation asset can connect to the electricity network. If this policy reduces delays to network build including enabling works, this could allow new low carbon generation to connect to the network more quickly, supporting households and businesses across the country in achieving cheaper, more secure and low carbon energy generation. **Greater buy-in to the energy transition** – This policy aims to ensure communities are involved and considered in the energy transition, which may increase buy-in.
Key risks (and risk costs, and optimism bias, where relevant)	The key risk is that the policy will not lead to a reduction in delays to network infrastructure delivery. All of our monetisable benefits are conditional on this. We have evidence that the delivery of a bill discount will improve acceptability in principle but we do not have any direct evidence that improved acceptability will feed through into a reduction in delays. Other risks include an overestimation of monetisable savings as the analysis into constraint cost savings is based on preventing delays to a significant number of network projects, some of which may fall outside the scope of this policy and some which may be too far through development for this policy to have a meaningful opportunity to reduce delays. Quantifying both of these risks will be done through analysis to accompany secondary legislation.

Results of sensitivity analysis	Initial sensitivity analysis, including switching values have been utilised throughout to test the impact of uncertainty around the key assumptions underpinning this cost-benefit analysis. Further sensitivity analysis will be explored at secondary legislation once further decisions have been made about scheme eligibility and payment level.

Evidence Base

Policy Background

1. At the heart of the Government's agenda is an ambition to make Great Britain (GB) a clean energy superpower, with twin objectives of delivering clean power by 2030 and accelerating towards net zero to boost energy independence, protect consumers and support jobs. Key to achieving this is ensuring that the electricity transmission network, which transports electricity from where it is generated to where it is needed, is fit for purpose. As we increase low-carbon and renewable electricity generation within the UK, we will need to increase the scale of the transmission network, at pace, to keep up with demand. It will not be possible to deliver a secure electricity supply, vital to growth and prosperity, without a transmission network that can transport it. Around twice as much new transmission network infrastructure will need to be built by 2030 as has been built in the past decade.[3,4.]

2. This unprecedented buildout will mean more communities across the country will have new electricity transmission infrastructure sited in their vicinity, playing a vital role in the country's acceleration towards net zero. Where communities live close to clean energy infrastructure, they should benefit from it. Unlike other infrastructure, these linear assets do not deliver the same sort of tangible benefits to the locality, such as jobs, skills, and inward investment. It is challenging for communities to visualise the end benefits for all consumers (secure, homegrown clean electricity) when faced with permanent, visually impactful infrastructure. Opposition increases the risk of legal challenges to planning consents, resulting in delays to the approval and build of new transmission network infrastructure. Some recent examples of this can be found in various news articles which focus on an academic study of the estimated impact on the value of houses situated near pylons or powerlines.[5,6]

3. The Electricity Networks Commissioner Nick Winser's independent report into accelerating electricity transmission network deployment made recommendations with the aim to halve the total development time for transmission infrastructure. The report specifically recommended providing community benefits to increase acceptability of new network infrastructure.[7] The recommended two-pronged approach involved direct benefits targeted at households living closest to new lines alongside wider benefits for the entire community. These wider benefits could include funding to support community projects to enhance the local economy, society and environment, funding to support community

[3] National Energy System Operator (NESO) (2024), *'Clean Power 2030'*
[4] Calculated using data held by the Department on the length of historic and future transmission networks.
[5] C.K. Tang and S. Gibbons, 2024. "Are friends electric? Valuing the social costs of power lines using house prices," Energy Economics (January 2025)
[6] J. Leake, 2024, The Telegraph 22nd August. (January 2025)
[7] Accelerating electricity transmission network deployment: Electricity Networks Commissioner's recommendations, (January 2025)

priorities which communities and developers can determine how best to spend in the local area.

4. The Government has committed to delivering Clean Power by 2030. To accelerate towards net zero, the sector must also accommodate an expected doubling of electricity demand by 2050 as sectors, such as transport and heat, shift to electricity as an energy source. The electricity network is fundamental to achieving this, yet there are two significant issues with the network – a) substantial electricity transmission network constraints are expected over the next decade, a key driver of which is the rate of network build, and b) grid connections are considered a significant barrier to connecting new cheaper, greener renewable generation.

Network constraints

5. Electricity transmission network constraints occur when the electricity transmission system is unable to transmit power to electricity users because the maximum capacity of the circuit is reached. Network constraints are expected to increase as renewables form a larger share of electricity generation due to the net zero transition. This is because the optimal location for non-renewables, which the grid was initially built around, differs from the optimal location for renewables, which tends to be further from electricity users because it is driven by needing to be placed in areas where weather conditions are more favourable for these technologies (for example, wind farms placed in areas where there are consistent strong winds).

6. This means the network must transmit power further, so larger parts of the network are facing congestion issues more frequently. The National Energy System Operator (NESO) typically manages constraints by paying generators to switch off (turn down) in locations where the network is congested and paying generators to switch on (turn up) in locations closer to electricity users. This is costly and has emissions implications because renewable generation is usually curtailed (switched off) whilst non-renewable generation is usually switched on to meet demand. Previous National Grid ESO analysis indicates that, if delays to network build persist,[8] annual constraint costs could rise from around £1.4 billion[9] per year in 2023 to around £8 billion[10] per year (£80 per household per year) in the late 2020s.[11]

7. One of the drivers of this problem is that renewables build is outpacing network build. As a result, network capacities are reached during periods of high renewable output, leading to curtailment. Rapid expansion of the electricity transmission network is required to solve this problem and ensure it can deliver cheaper, cleaner, secure energy.

[8] FTI Consulting (2022), Updated modelling results, slide 12 (January 2025)
[9] National Grid ESO, Monthly Balancing Services Summary (MBSS), 2023, https://www.nationalgrideso.com/data-portal/mbss (January 2025)
[10] Undiscounted, 2022/23 prices.
[11] The Department for Energy Security & Net Zero commissioned National Grid ESO to estimate constraint costs with a 3-year delay to network build.

Grid connections

8. Grid connections are required to connect electricity generation and electricity users to the network. Applications to connect to the electricity network from renewable energy projects have outstripped the available infrastructure for it to connect to. This is one of the drivers behind developers receiving lengthy connection dates, which delays investment in, and availability of, clean electricity. It can also result in renewable developers accepting 'non-firm' connections[12] which do not fully utilise the output of their projects. At the transmission level, and for distribution connections that impact on the transmission network, connection dates can be into the late 2030s. Accelerating network build times will help to connect renewable projects and utilise the generation faster, enabling consumers to benefit from cheaper, greener, more secure electricity.

Rationale for intervention

9. To support the Government's clean energy superpower mission, new electricity transmission infrastructure will bring clean, secure energy to all GB consumers, but on its way to transmitting power to all of GB, it passes through communities who do not experience enduring direct benefits from it in terms of new jobs, skills or investment. This infrastructure is needed to move power from where it is generated, through lower-demand rural communities, and towards higher-demand urban centres, and may add to a perception that communities living near to it experience a lack of direct benefits and/or a disproportionate negative impact. Public consent for transmission network infrastructure projects is precarious and challenges Government's ability to meet the required scale of infrastructure to keep pace with increasing electrification and to help realise clean power by 2030 targets.

10. Communities that live close to new network infrastructure are therefore a critical stakeholder in delivering cheaper, cleaner, secure energy – there is a positive externality for wider society. In the absence of Government intervention, these external benefits are unlikely to be considered, leading to under provision of network infrastructure and community benefits. Government intervention is required to internalise this external benefit and ensure communities can gain from network infrastructure, that delivers a national need, being sited in their vicinity.

11. Work to date has indicated that a centralised, mandated approach to a bill discount scheme, with a scheme administrator, is recommended and is also preferred by communities. This allows for greater consistency and enforcement, the automatic application of discounts for most eligible households and maximises efficiency of delivery, monitoring, and evaluation. The below list explains why Government intervention is required:
    - **Higher likelihood of achieving policy aim** – If suppliers are mandated to deliver the scheme, a greater proportion of eligible properties will receive the discount they are eligible for. Without mandating, there is a risk the policy aim of increasing community-wide acceptability is undermined.

[12] In return for quicker and cheaper connections, developers accept that under certain circumstances their projects will not be able to export their generation.

- **Equal opportunity to benefit across different consumer types** – We aim to mandate suppliers to provide bill discounts to consumers**.** A centralised approach enables provision of an equivalent benefit (i.e. direct payment, cheque, or voucher) to eligible recipients who have no direct relationship to a supplier and therefore cannot receive discounts automatically. A legally mandated scheme ensures no groups are disadvantaged due to more challenging delivery considerations.
- **Avoids supplier market distortions –** Mandating all suppliers to deliver the scheme ensures there is not a perverse incentive for consumers to switch to certain suppliers who offer the discount.
- **To provide a legal mandate** – a scheme of this nature cannot be effectively delivered without primary legislation, to mandate and enforce the scheme's delivery.
- **To deliver a centralised approach** – to deliver bill discounts consistently, we need to designate a scheme administrator and confer on it powers to perform delivery functions, which requires Government intervention.

Policy objectives

12. The policy aims to support the Government's clean power by 2030 mission by ensuring communities living closest to new transmission network infrastructure receive a direct benefit through bill discounts. This includes reducing delays to network build, decreasing network constraints, and increasing community buy-in to the energy transition.

13. The intention of the policy is to help in reducing community opposition to new transmission infrastructure build, reduce network build delays, the amount of emissions savings, the reduction in network constraint costs, and the level of community acceptance and trust in transmission operators and developers.

14. The policy is achievable through collaboration between Government, the scheme administrator, electricity suppliers, Transmission Owners (TOs), developers and communities living closest to new infrastructure.

15. The intention of the policy is to support broader goals of not only decarbonisation of the electricity system, but also ensure that communities are brought with us on the journey to clean power by 2030 and acceleration to net zero.

16. The overarching objective of the policy is to improve community acceptability of new electricity network transmission infrastructure. The scheme's aim will be realised through the following SMART objectives, which are linked to benefits and disbenefits shown in the theory of change and inform our monitoring and evaluation plan. For further discussion of M&E see the section 'Monitoring and 'Evaluation'.

Objectives:

17. **Improved community acceptability:**
    - **Specific:** Over the duration of the scheme (2026-2041),[13] ensure that eligible recipients understand:
        - The direct economic benefit they are receiving.
        - How they will receive the benefit – through their electricity supplier or hard to reach delivery model for those recipients who do not have a traditional relationship with their supplier. See objective 3.
        - When they will receive the benefit – eligible recipients will receive the benefit once construction starts for eligible projects post scheme launch in 2026.
    - To show a clear link between new transmission infrastructure in their vicinity and an individual, direct benefit.
    - **Measurable:** Conduct monitoring and evaluation throughout the duration of the scheme (2026-2041), including surveys of eligible recipients.
    - **Achievable:** To ensure that eligible communities understand the direct economic benefit that they are receiving, how they will receive it and when.
    - **Realistic:** To monitor and show how eligible recipients become increasingly aware of the scheme, the direct economic benefit they receive, and the link between this and the new transmission infrastructure in their vicinity.
    - **Time-bound:** Monitoring and evaluation activity will take place routinely after the scheme launches – to inform key review points: Process Evaluation (December 2026 – March 2027), Interim Impact Assessment (Mid scheme), Post Implementation Review (2031, and potentially every 5 years thereafter), and Final Impact Assessment and value for money evaluation upon the scheme ending.

18. **Delivery of automatic benefits:**
    - **Specific:** Ensure that as many of the properties eligible for the scheme receive the automatic discount promptly through their energy supplier for the scheme's duration (2026-2041).
    - **Measurable:** Monitor the number of households in receipt of bill discounts through their energy supplier throughout the scheme.
    - **Achievable:** To ensure that the scheme is delivered effectively and efficiently.
    - **Realistic:** Minimise the risk of fraud and reputational damage to HMG by implementing robust delivery processes and monitoring systems.
    - **Time-bound:** to achieve prompt delivery of bill discounts to eligible households throughout the scheme's duration (2026-2041).

19. **Hard to reach recipients:**
    - **Specific:** Ensure that the ~1,000 properties described as "hard to reach" (HTR) that cannot receive the discount automatically, can enrol and receive the discount promptly through the HTR delivery model.
    - **Measurable:** Monitor the number of HTR houses in receipt of bill discounts.
    - **Achievable:** To ensure that the HTR scheme is delivered effectively and efficiently.

[13] 2041 is the 10th year after the construction of the last project that that has been considered in scope for the purposes of this analysis. Final details on the eligibility window for projects will be defined in secondary legislation.

- **Realistic:** Minimise the risk of fraud and reputational damage to HMG by implementing robust delivery processes and monitoring systems.
- **Time-bound:** to achieve prompt delivery of bill discounts to eligible households throughout the scheme's duration (2026-2041).

20. **Ensure alignment of experience across the scheme:**

- **Specific**: Ensure alignment of experience across the scheme by:
    - As far as possible, aligning household experiences of the scheme across GB and across both the automatic and opt-in schemes to ensure consistency during the scheme's duration.
    - Through the monitoring of economic, societal and environmental benefits, ensuring that eligible recipients are not advantaged/disadvantaged by their location.
    - Ensuring consistency of the delivery of benefits across all projects within scope of the scheme.
    - Minimising potential negative impacts of the scheme through monitoring of disbenefits.
- **Measurable:** Monitor and compare household experiences using surveys, reviewing complaints and customer feedback and other customer inputs from eligible recipients.
- **Achievable:** To deliver a consistent service across GB, and across the automatic and HTR scheme, as far as possible.
- **Realistic:** Address disparities surfaced in surveys, complaints or feedback where practicable to do so, to ensure eligible recipients are not disadvantaged by their location, to minimise potential negative impacts of the scheme.
- **Time-bound:** To conduct ongoing monitoring and evaluation activity throughout the scheme's duration (2026-2041) to inform key review points: Process Evaluation (December 2026 – March 2027), Interim Impact Assessment (Mid scheme), Post Implementation Review (2031, and potentially every 5 years thereafter), and Final Impact Assessment and Value for Money evaluation upon the scheme ending.

21. **Ensure wider public knowledge of the scheme:**
- **Specific:** Throughout the duration of the scheme (2026-2041) ensure that the broader public understands the economic, social, and environmental benefits of the bill discount scheme, benefitting all of GB.
    - Namely: the need to bring communities along to expand the grid, how this could reduce delays and constraint costs and increase emissions savings.
- **Measurable:** To track public awareness of the bill discount scheme and its associated benefits through regular public opinion surveys.
- **Achievable**: To raise public awareness of the scheme, and the vital role that communities play in living near to new transmission network infrastructure, where grid expansion could reduce constraint costs, and increase emissions savings, and help to achieve Clean Power and Net Zero targets.
- **Realistic:** To provide regular communications about the scheme to inform the broader public.

- **Time-bound:** To conduct ongoing monitoring and evaluation activity throughout the scheme's duration (2026-2041) to inform key review points: Process Evaluation (December 2026 – March 2027), Interim Impact Assessment (Mid scheme), Post Implementation Review (2031, and potentially every 5 years thereafter), and Final Impact Assessment and Value for Money evaluation upon the scheme ending.

Policy Options Considered

Do nothing – Business as usual

22. The proposed bill discount scheme is not delivered, community acceptability of transmission network infrastructure is not improved, and the risk of delays to network build due to community opposition persists. Previous National Grid ESO analysis indicates that, if delays to network build persist,[14] annual constraint costs could rise from around £1.4billion[15] per year in 2023 to around £8billion[16] per year (£80 per household per year) in the late 2020s.[17]

Non – regulatory options considered

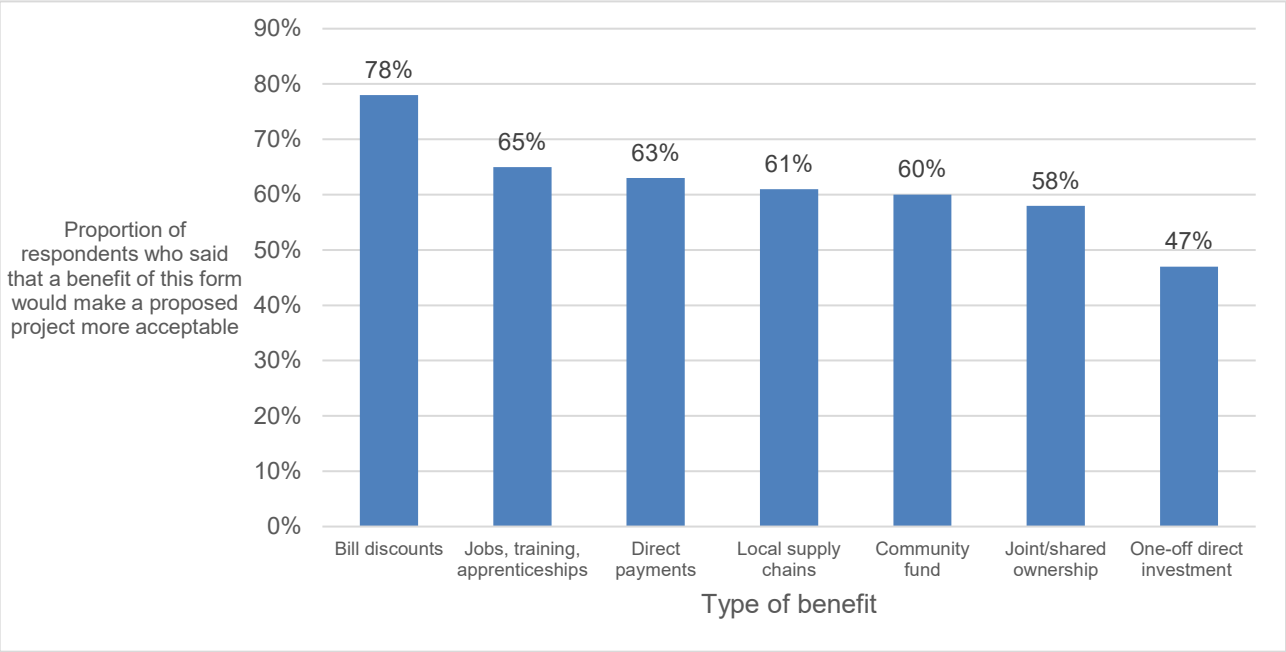
22. Non-regulatory options have been considered. Currently, transmission owners and developers offer community benefits on an ad–hoc basis but this is inconsistent and only a small number of the communities affected by network projects benefit.

23. To support in developing the community benefits policy, the previous Government commissioned social research with communities surrounding several proposed future network infrastructure projects[18]. Surveys and workshops were used to understand views towards community benefits and how acceptability of new infrastructure could be improved. Figure 1 presents the participants' views of different forms of benefit to improve acceptability.

24. Participants were also asked about their preference for mandatory versus voluntary community benefits. Some respondents cited advantages of voluntary schemes being more adaptable to individual communities, but concerns were raised that guidance would not be applied consistently and the risk of unfair treatment if some communities were to miss out.

[14] FTI Consulting (2022), Updated modelling results, slide 12 (January 2025)
[15] National Grid ESO, Monthly Balancing Services Summary (MBSS), 2023, https://www.nationalgrideso.com/data-portal/mbss
[16] Undiscounted, 2022/23 prices.
[17] The Department for Energy Security & Net Zero commissioned National Grid ESO to estimate constraint costs with a 3-year delay to network build.
[18] BMG Research for the Department for Energy Security & Net Zero (2024) (January 2025)

Figure 1: Chart showing percentage surveyed reporting each type of benefit would help make a new electricity transmission network infrastructure project more acceptable[19]



25. Unlike other forms of energy infrastructure such as wind farms or nuclear plants, transmission overhead lines run through communities but do not require ongoing operational support that could generate employment or training opportunities for the local area. Joint/ shared ownership is difficult with this form of infrastructure since there is no production of saleable goods or services.

26. In social research, bill discounts were the form of benefit rated as most likely to improve community acceptability. An automatic delivery of a bill discount is also easier to deliver and has a lower fraud risk than a direct payment to an individual. A direct payment scheme would require properties to opt in and would require frequent updates to ensure that the data held is accurate and up to date. There would be a significant administrative burden to verify applications and a risk of fraudulent applications. Bill discounts can be delivered without the involvement of recipients as suppliers will be provided with the list of Meter Point Administration Number (MPAN[20]) numbers of eligible properties.

27. There is no way of delivering a benefit of this type without regulatory action. A scheme administrator must be established to coordinate funding routes; to data–match to identify eligible properties and to provide suppliers with the MPAN numbers of eligible properties. We will also need to mandate suppliers to pass on the bill discount. Different electricity suppliers cover the same areas and so, if delivery of bill discounts were voluntary, a scenario could arise where a developer chooses to deliver a bill discount but only some electricity suppliers choose to pass that discount on.

[19] *Q: To what extent would each of the following types of community benefits help make the transmission infrastructure project acceptable to you (n=2359).*

[20] An MPAN (Meter Point Administration Number) is a unique 13-digit reference that identifies each electricity supply point.

Bill discount options considered

28. The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. These will significantly affect the size and economic impact of the scheme. As such, we have carried out analysis on four illustrative scenarios to demonstrate the potential scale of impacts from the proposed scheme while leaving room for further development and analysis which will be detailed in the IA accompanying introduction of secondary legislation. These scenarios do not reflect a current minded-to position of the Government with regards to the scope or eligibility of the scheme and further changes could be made for example, to the amount eligible properties would receive or the length of time in which the scheme will be payable.

- **Scenario 1:** Electricity Bill Discount of £10,000 over 10 years (£1,000 per year) per property located within 500m of new transmission network infrastructure ***including*** non-domestic properties and new build properties.
- **Scenario 2:** Electricity Bill Discount of £5,000 over 10 years (£500 per year) per property located within 300m of new transmission network infrastructure ***excluding*** non-domestic properties and new build properties.
- **Scenario 3:** Electricity Bill Discount of £2,500 over 10 years (£250 per year) per property located within 300m of new transmission network infrastructure ***excluding*** non-domestic properties and new build properties.
- **Scenario 4:** Electricity Bill Discount of £1,000 over 10 years (£100 per year) per property located within 200m of new transmission network infrastructure ***excluding*** non-domestic properties and new build properties.

Preferred Option

29. The Government's minded to position is to implement a mandatory, centralised approach to providing bill discounts to communities closest to new electricity transmission infrastructure. The below paragraphs provide further detail on the proposed delivery model and scope. We will continue to develop the scheme in consultation with key stakeholders.

Delivery Model - a centralised approach

30. As per our minded to position, a centralised and mandated approach would allow for greater consistency and enforcement and would enable automatic application of discounts for most properties, thus reducing burden on households.
31. We are reviewing options for 'hard-to-reach' households, including opt-in applications. These are a small minority (less than 1%) of eligible households who would be unable to receive the bill discount automatically due to lack of a direct relationship with an electricity supplier. These may include houses on traditional pre-payment meters; individuals whose electricity is paid for by their property owner such as care home residents or households which are classed as "off grid".
32. A scheme administrator will be required to coordinate, manage and implement the bill discount scheme. The likely functions of such an administrator include recipient identification; data monitoring and evaluation; fraud monitoring and redress; customer service; and processing manual applications from opt-in recipients.

33. To deliver this, the following powers will be set out in primary and followed by a suite of secondary legislation to set up the scheme:
    - Provisions to establish a bill discount scheme for properties closest to new transmission infrastructure.
    - Powers to designate a scheme administrator and to confer on it the functions it will need to deliver the scheme.
    - Powers in relation to the operation of the scheme, including, for example, data sharing powers, how the discount will be applied, the amount of discount that will be provided and the length of time it will be applied for.
    - Powers to enable the Secretary of State to set scheme eligibility in secondary legislation.
    - A description of the infrastructure that is within scope of the scheme, with further criteria in secondary legislation.
    - Powers to enable the Secretary of State to address issues relating to 'hard to reach' customers in secondary legislation, including a passthrough requirement and opt-in scheme.
    - Powers in relation to enforcement measures.
    - Powers in relation to an appeals process.
    - Powers to establish a monitoring and evaluation activity, with details in secondary legislation.

Scheme funding

34. We propose that the scheme will be funded by an obligation on electricity suppliers. They are expected to recoup their costs by passing them onto their customers. This impact assessment assumes all costs will be passed onto all electricity billpayers, except for energy intensive industries which are usually exempt from paying for such schemes.

35. The estimated cost of the scheme depends on the agreed scope and eligibility, which will be set out in the impact assessments accompanying secondary legislation.

Implementation Plan

36. To implement the scheme, the first step is to introduce measures in primary legislation. We intend to conduct further stakeholder engagement to support the scheme's development.

Costs and Benefits

37. This section outlines monetised and non-monetised impacts of the indicative policy scenarios for a potential bill discount scheme, and the methodology and assumptions used to monetise this. The approach used to calculate costs, benefits and transfers are consistent across the four indicative scenarios as the differences are based on assumed levels of payment, eligibility radius and property type eligibility.

38. The detailed scope and eligibility of the scheme decisions will be defined in secondary legislation. As such the scenarios presented in this IA are for illustrative purposes to demonstrate the potential scale of the impacts of the policy under different policy scenarios, while leaving room for further development and analysis which will be the detailed in the IA accompanying introduction of secondary legislation.

39. The analysis outlined in this section of the IA is uncertain and dependent on an assumed relationship between improved community acceptability of network infrastructure, prevention of delays to network build and network constraint costs. This is highly uncertain because the estimated acceptance rate may not feed through to preventing delays 1:1 and there is a possibility that delays may not be prevented at all. Recognising this uncertainty, switching values have been used to demonstrate the level at which key assumed values such as the reduction in constraint cost as a result of the policy would need to be in order for the impact of the scheme to be neutral.

40. The appraisal period is 16 years (2026 – 2041)[21] as this covers up to and including the 10-year eligibility of the last in scope ASTI transmission project, due to begin construction in 2031. Costs and benefits are in 2025 prices and discounted at 3.5% from 2026 present value – the year we would expect the policy to commence.

Monetised Impacts

Direct Transfers:

41. **A transfer from all electricity consumers to households closest to new transmission network infrastructure** – This transfer has no net impact on social welfare since the total cost which is expected to be passed on to electricity bills required to fund the policy is equal to the total bill savings for the discount recipients.

Direct Costs

42. **Familiarisation costs** - Transmission Owners (TOs), developers, electricity suppliers, and Local Authorities could incur time costs to familiarise themselves with the bill discount scheme.
43. **Administration costs** – Government, the scheme administrator, the regulator, electricity suppliers, TOs developers and Local Authorities may incur costs to administer bill discounts. This has been broken down into

[21] This appraisal period differs from the 10-year appraisal period used for the Summary Table, which has been applied to align with other measures included in this Impact Assessment.

a. Government administration costs
b. Industry administration costs

Indirect Costs:

44. **Earlier network investment** – If the policy reduces delays to network build, network investment will occur sooner, bringing forward investment costs. This policy will not cause new investment to occur, and is simply reducing delays to already planned investment

Indirect Benefits:

45. **Constraint costs savings** – If this policy reduces delays to network build, this will reduce congestion on the network and reduce constraint costs, resulting in savings for electricity consumers. This is because constraint costs are part of balancing charges, which make up a portion of electricity bills.

46. **Emissions savings** – If this policy reduces delays to network build and decreases network constraints, there will be emissions savings. This is because renewable generation is usually curtailed (switched off) whilst non-renewable generation is usually switched on to meet demand.

Table 1.1: Summary of Monetised Impacts (2025 prices, £ millions, discounted)[22]

	Total Transfers	Total Costs[23]	Total Benefits[24]	Net Benefit[25]	Benefit – Cost Ratio[26]
Scenario 1	2,030	250	910	660	3.7
Scenario 2	400	220	800	590	3.7
Scenario 3	200	200	740	540	3.7
Scenario 4	40	180	670	490	3.7

47. In recognition of the fact that the analysis presented in this Impact Assessment is subject to a high degree of uncertainty we have supplemented traditional appraisal summary statistics, such as Net Present Values and Benefit Cost Ratios with a switching value approach, the results for which are, outlined in Table 1.2 below. For further details on the approach taken to derive these switching values, see Sections 'Methodology for quantified impacts' and 'Switching Value Analysis' and for further discussion of the uncertainty of this analysis, refer to section 6. 'Risks and Assumptions'.

Table 1.2: Summary of Switching Value Analysis:

[22] All values are rounded to the nearest 10million
[23] Excluding transfers
[24] Excluding transfers
[25] NPV, benefits - costs
[26] BCR excluding transfers, may not match to total values in Table 1 due to rounding.

	% reduction in modelled constraint costs assumed in this Impact Assessment (range in brackets)	% reduction in modelled constraint costs required for the scheme to achieve an average "net neutral" impact (2026-2035)
Scenario 1	27% (0 - 54%)	95% – 100%
Scenario 2	24% (0 - 48%)	15% – 20%
Scenario 3	22% (0 - 44%)	5% – 10%
Scenario 4	20% (0 - 40%)	< 5%

Unmonetised Impacts

Unmonetised Costs

48. **Costs associated with network infrastructure being in place sooner** – If this policy reduces delays to network build, communities closest to new electricity transmission infrastructure may face costs associated with network infrastructure such as disruption costs, noise impacts, and landscape impacts sooner than expected. These costs would still be incurred in the baseline scenario, but they may be incurred sooner if this policy reduces delays to network build.

Unmonetised Benefits

49. **Shorter network connection times for new low carbon generation** – Enabling works must be completed before a new generation asset can connect to the electricity network. If this policy reduces delays to network build including enabling works, this could allow new low carbon generation to connect to the network more quickly, supporting households and businesses across the country in achieving more secure and low carbon energy generation.

Wider benefits

50. **Lower legal costs** - Communities closest to new infrastructure may have lower legal costs due to this policy if they feel they are benefitting adequately from transmission network infrastructure being sited in their vicinity and are not required to legally challenge the infrastructure as a result.

51. **Greater buy-in to the energy transition** – This policy aims to ensure communities are involved and considered in the energy transition, which may increase buy-in.

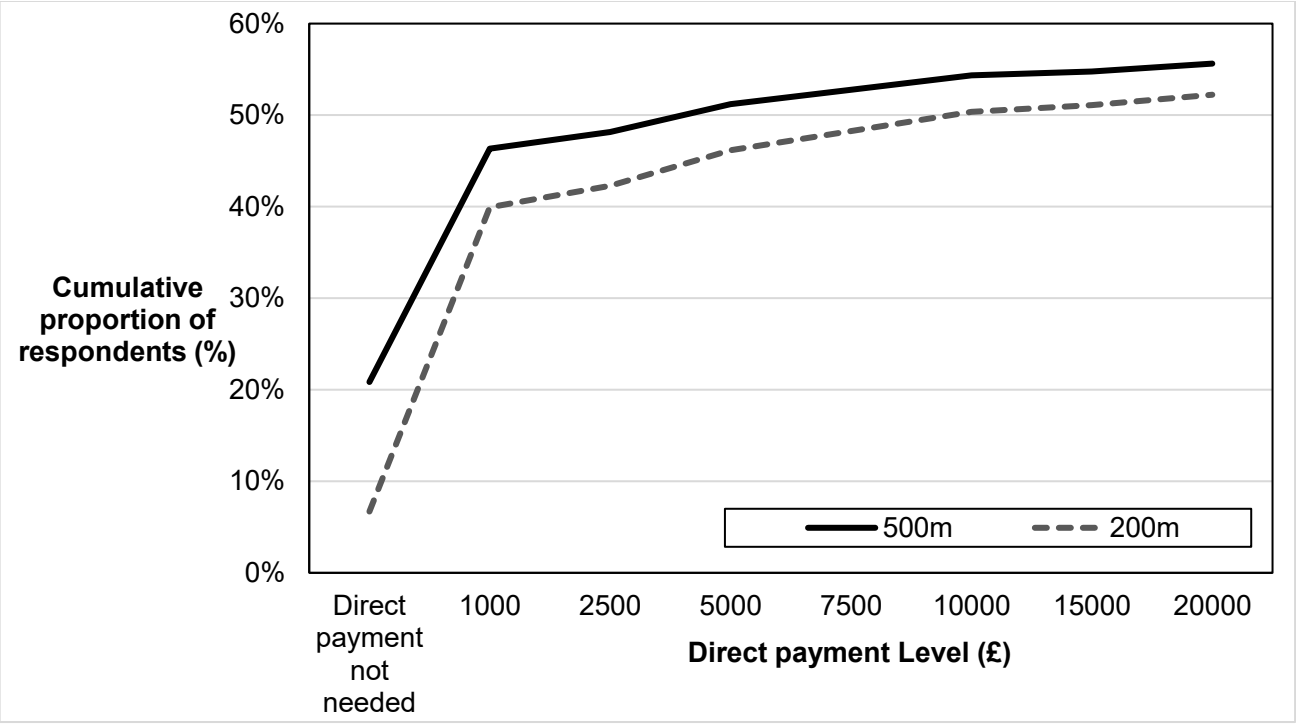
52. **Positive economic outcomes for lower income recipients** – Our analysis suggests that areas which are likely to have new transmission infrastructure are also more likely to have lower average annual incomes compared to the national average. Further analysis of the distributional impacts of the policy is detailed in the 'Distributional Impacts' section.

Methodology for quantified impacts

Likelihood of a 1-year delay

53. In social research[27] commissioned by the Department for Energy Security & Net Zero, participants were asked about the level of direct payment that would be needed to improve acceptability of network infrastructure. The outputs of this question are presented in Figure 2, which illustrates the results for scenarios where individuals either live right next to the new infrastructure or live in close proximity to a substation or lattice pylon, with a clear view of it from their home. For further details on the limitations of the social research used in this analysis, please refer to the 'Risks and Assumptions' section.

Figure 2: Cumulative proportion of respondents who stated a direct payment of this size would help make a project more acceptable (%).



54. The analysis uses these different “acceptance levels” to inform the estimated likelihood of a 1-year delay being prevented under differing policy scenarios as we vary the eligibility radius and level of payment delivered. Table 1.3 outlines the low, central & high estimates which we have applied in this analysis. The low estimate represents the case where bill discount payments have no impact on preventing delays to network build. The high estimate represents the case where “acceptance levels” from social research for a given payment level correspond 1:1 to the estimated likelihood of preventing a 1-year delay to network build. The central estimate is the midpoint of the low and the high estimate. The 1-year assumption is based on limited internal evidence of the length of Judicial Reviews. However, this is highly uncertain and further detail on the limitations to this approach are outlines in the ‘Risks and Assumptions’ section.

[27] BMG Research for the Department for Energy Security & Net Zero (2024) (January 2025)

55. We recognise that this approach is highly uncertain and that the estimated likelihood applied has a significant impact on the overall estimated cost & benefits of the scheme. As a result of this we have supplemented this cost-benefit analysis with a switching value approach, set out further in section 'Switching Value Analysis', to demonstrate what the equivalent % reduction in constraint costs as a result of the policy reducing delays to network build would have to be for the scheme to have a "net neutral" average impact on household electricity bills over 10 years for each indicative policy scenario.

Table 1.3: Estimated likelihood of preventing a 1-year delay to network build (%)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Low	0	0	0	0
Central	27	24	22	20
High	54	48	44	40

56. This analysis assumes that there would be a 1-year delay to network build in the 'do nothing' scenario, then applies an estimated likelihood outlined in Table 3 that the delay would be prevented with the introduction of the bill discount scheme. The 'likelihood of preventing a 1-year delay' is used to estimate the value of costs and benefits that would occur if this policy prevented delays to network build. These include:
    - Earlier network investment costs
    - Constraint cost savings
    - Emissions savings from reduced constraints

Monetised Transfers – Bill Discounts

57. The scheme will be funded by an obligation on electricity suppliers. They are expected to recoup their costs by passing them onto their customers through their bills. This impact assessment assumes all costs will be passed onto billpayers. Funding this policy via electricity bills will result in a transfer from all electricity consumers to communities closest to new transmission network infrastructure as network charges form a portion of an electricity bill. This section outlines how this transfer is quantified.

Bill Discounts

58. Bill discounts are the £ per property values outlined in the illustrative policy scenarios, these are:
    - **Scenario 1:** Electricity Bill Discount of £10,000 over 10 years (£1,000 per year) per property located within 500m of new transmission network infrastructure *including* non-domestic properties and new build properties.
    - **Scenario 2:** Electricity Bill Discount of £5,000 over 10 years (£500 per year) per property located within 300m of new transmission network infrastructure *excluding* non-domestic properties and new build properties,
    - **Scenario 3:** Electricity Bill Discount of £2,500 over 10 years (£250 per year) per property located within 300m of new transmission network infrastructure *excluding* non-domestic properties and new build properties.

- **Scenario 4:** Electricity Bill Discount of £1,000 over 10 years (£100 per year) per property located within 200m of new transmission network infrastructure ***excluding*** non-domestic properties and new build properties.

59. To estimate the number of households eligible for direct benefits, we used a 1998 study by National Grid Electricity Transmission (NGET)[28] on the number of homes near NGET power lines. We assumed a growth rate in housing stock of 22% between 1998 and 2023 based on Government dwelling stock statistics[29] then applied this to the estimates in the study to estimate the number of homes near NGET power lines in 2023. For further detail on the limitations of this approach see "Risks and Assumptions".

60. From this, we estimated an average number of homes per km of transmission line (homes/km) by assuming NGET overhead lines have a total combined length of 7,200km.[30] Next, we calculated the number of households eligible for direct benefits by applying this homes/km to the length of overhead lines expected to be built in the next 10 years.

61. For policy scenarios that include non-domestic properties, we compared the number of domestic properties in 2023 from the sources above to the current number of non-domestic properties to form a ratio. This suggested that non-domestic properties were 7.5% of total properties. We applied this uplift to our estimate of the number of properties to arrive at the estimated number of eligible properties outlined in Table 1.4. The range is calculated by applying -20% and +20% to the central calculation of the number of eligible properties, to ensure the degree of uncertainty is appropriately reflected.

Table 1.4: Estimated number of eligible properties

Distance from transmission line (m)	Number of eligible domestic properties	Number of eligible domestic and non – domestic properties
100m	12,600-18,800	14,000-20,000
200m	37,900-56,900	41,000-61,000
300m	72,100-108,100	78,000-117,000
400m	113,600-170,300	123,000-184,000
500m	163,500-245,300	176,000-265,000
600m	202,800-304,200	219,000-328,000

62. To calculate the size of the bill discounts transfer, we multiplied the estimated number of eligible properties by the level of benefit, assuming bill discounts are paid for 10 years from the start of construction. This incorporates a further assumption on future annual

[28] Stakeholder Advisory Group on ELF EMFs (SAGE) Precautionary approaches to ELF EMFs page 61
[29] https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants Table 104: Dwelling stock by tenure, England (historical series)
[30] Based on NGET estimate of 4,500 miles (7,200km to the nearest 100 km) of overhead lines.

housing stock growth to ensure the estimated number of eligible households take account of housing stock growth between 2023 and the year the benefits are paid. To do this, we have derived a growth rate in net additions from the Office for Budget Responsibility (OBR) October 2024 Economic and Fiscal Outlook forecast for UK net additions.[31] We have assumed that the rate of growth in net additions in the OBR's Economic and Fiscal Outlook is uniform across the constituent nations of the United Kingdon, and that the forecast rate of growth between 2027 – 2029 is maintained until the end of our appraisal period (2041). See a summary of the direct benefits transfer estimates outlined Table 1.5. Low and high estimates for each indicative policy scenario reflect the range in the estimated number of eligible properties.

Table 1.5: Estimates for total transfers (£ millions, 2025 prices, discounted)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Low	1620	320	160	30
Central	2030	400	200	40
High	2370	470	230	50

Monetised Costs

Direct Costs

Administration costs

63. There will be costs to administer bill discounts. These costs will be incurred by both the Government and industry. Administration costs for bill discounts are calculated by assuming an administration cost per property per year of:
    - Government administration: £0 – £2
    - Industry: £2 - £3

64. The lower cost is the estimated administration costs of the Energy Bill Support Scheme (EBSS), whilst the higher cost is the estimated administration cost of the Warm Home Discount Scheme (WHD). Administration costs specific to this policy are uncertain as the detail of how bill discounts will be administered is still in development. Therefore, using a range from existing schemes was deemed appropriate. We multiply these costs by the estimated number of eligible properties outlined in Table 4 to arrive at a total administration cost for bill discounts. Low and high estimates reflect the range in the estimated number of eligible properties and the upper and lower estimates for cost per property per year.

Table 1.6: Estimated costs of Government and industry administration costs (£ millions, 2025 prices, discounted)

		Scenario 1	Scenario 2	Scenario 3	Scenario 4
Government administration	Low	1	0	0	0
	Central	3	1	1	1
	High	6	2	2	1

[31] Office for Budget Responsibility (OBR): October 2024 Economic and Fiscal Outlook – detailed forecast tables: economy, Table 1.17

Industry administration	Low	3	1	1	1
	Central	5	2	2	1
	High	7	3	3	1

Familiarisation costs

65. To calculate familiarisation costs, we assume 10 people per Transmission Owner, 5 people per offshore wind developer, 30 people per community closest to new infrastructure, 1 person per Local Authority, and 1 person per electricity supplier will be required to familiarise themselves with the bill discount scheme. We assume reading, understanding, and responding will take 1 working day (8 hours) per person. This is uncertain and is based on internal estimates, but we have tested these numbers with external stakeholders including Transmission Owners.

66. Next, we assume a median hourly wage for 'Chief executives and senior officials' of £43.72 (2025 prices)[32] and a non-wage labour uplift of 30% to arrive at £56.83 (2025 prices) per hour per person. We assume there are 3 Transmission Owners, 46 offshore wind developers,[33] around 300 eligible communities, 317 Local Authorities,[34] and 21 electricity suppliers.[35] This data is multiplied by the number of hours and number of people per business or organisation to arrive at the estimates outlined in Table 1.7.

67. Limitations to this approach are set out in the 'Risks and assumptions' section. Low and high estimates are calculated applying -50% and +50% to the central calculation respectively, to ensure the degree of uncertainty is appropriately reflected.

Table 1.7: Estimates for familiarisation requirements

	Number of businesses/organisations	Number of people per business	Time taken (hours)
Transmission Owner	3	10	240
Offshore Wind Developer	46	5	1840
Community	511	30	122,640
Local Authority	317	1	2536
Electricity Supplier	21	1	168

Table 1.8: Estimates for familiarisation costs (£ millions, 2025 prices, discounted)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Low	3	3	3	3
Central	6	6	6	6
High	9	9	9	9

[32] ONS Annual Survey of Hours and Earnings (ASHE) – 2023 revised, rebased to 2025 prices
[33] Based on an internal list of offshore wind developers
[34] https://www.gov.uk/guidance/local-government-structure-and-elections
[35] https://www.ofgem.gov.uk/retail-market-indicators

Indirect Costs

Earlier network investment costs

68. Earlier network investment costs were calculated using transmission network investment estimates outlined in the Electricity Networks Strategic Framework (ENSF)[36]. Low estimates reflect network investment required under the 'Net Zero Lower' scenario in the ENSF, whilst high estimates reflect network investment required under the 'Net Zero Higher' scenario in the ENSF. The central scenario is an average of the two. We assume there would be a 1-year delay to network build in the 'do nothing' scenario then assume a likelihood that this delay would be prevented with community benefits. To arrive at the estimates outlined in Table 1.9 we multiplied the difference in network investment with a 1-year delay vs. no delay by the estimated likelihood of preventing the delay.

69. See the 'Likelihood of preventing delays' section for more detail on this approach.

70. We have also assumed that there will be a lag before we begin to see delays to investment prevented; for the first 4 years of the policy appraisal period we have assumed that investment will continue to experience a 1-year delay.

71. We do not expect any additional infrastructure to be built due to this policy – all in scope projects have already been approved by Ofgem and so would be built under the do – nothing scenario. Costs associated with earlier network infrastructure should therefore be treated with caution as they are highly sensitive to the choice of appraisal period and should not be viewed as additional costs that would be prevented by not enacting the policy.

Table 1.9: Estimated costs of earlier network investment (£ millions, 2025 prices, discounted)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Low	0	0	0	0
Central	240	220	210	200
High	470	440	420	400

Monetised Benefits

Indirect Benefits

Constraint cost savings

72. Constraint cost savings were calculated using constraint cost estimates provided by NESO. We requested the additional constraint costs per year under the scenario that there was a 1-year delay to every project required for optimal reinforcement.

73. Optimal reinforcement is determined through the Network Options Assessment (NOA) carried out by NESO, which is the process to recommend which network reinforcement projects should receive investment, and when. We have applied a +/- 20% to the central scenario to create the upper and lower bounds, reflecting the uncertainty around the

[36] Electricity Networks Strategic Framework: Enabling a secure. net zero energy system

central estimates for these savings. Then we multiplied this by the likelihood to arrive at the estimates outlined in Table 1.10. Limitations of this data are outlined in the 'Risks and assumptions' section.

74. We have assumed that no savings will be incurred before 2030 as constraint cost savings are dependent on infrastructure being operational. Further discussion of this can be found in the 'Risks and assumptions' section.

75. The analysis assumes there would be a 1-year delay to network build in the 'do nothing' scenario then assumes a likelihood that this delay would be prevented with bill discounts. See the 'Likelihood of preventing delays' section for more detail on this approach.

Table 1.10: Estimates for constraint cost savings (£ millions, 2025 prices, discounted)

	Scenario 1	*Scenario 2*	*Scenario 3*	*Scenario 4*
Low	0	0	0	0
Central	830	780	730	700
High	1980	1870	1760	1690

Emissions savings

76. Emissions savings were calculated using estimates of emissions due to network constraints provided by NESO. NESO provided the emissions associated with the constraints outlined in the Network Options Assessment 7 (NOA 7).

77. Using this data, we applied a +/- 20% to get the upper and lower bound then calculated a mass of emissions per £ of constraint costs (MtCO2e/£). We multiply this by the constraint cost savings from the 'Reduced network constraints' section to estimate total emissions savings. To monetise this, we use Government estimates of social carbon values[37] but remove private carbon costs to prevent double counting as these are already included in the constraint cost savings estimates. As above, we have assumed that savings will only begin to be incurred from 2030. Emissions savings are outlined in Table 1.11.

Table 11: Estimates for emissions savings (£ millions, 2025 prices, discounted)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Low	0	0	0	0
Central	90	80	80	70
High	530	490	470	450

Impacts on Businesses & Households

78. The policy is likely to have differing impacts on households and businesses. In particular:

[37] Valuation of energy use and greenhouse gas emissions - Supplementary guidance to HM Treasury Green Book on Appraisal and Evaluation in Central Government

- Domestic consumption represents 35% of electricity consumption. Any impacts which will affect consumers based on their consumption, will likely have a greater total impact on businesses than households.
- Whether non-domestic properties (NDPs) will be eligible to receive bill discounts will be defined in secondary legislation. NDPs represent 7% of all properties in the UK so, even under scenarios where NDPs are eligible, this policy is likely to have a greater benefit to households.

79. The proportion of the bill discount scheme which will be funded by domestic and non – domestic electricity suppliers, which is expected to be passed to billpayers, will be laid out in secondary legislation. The following impacts are illustrative and assume that the policy is funded via a unit pricing mechanism .

Table 1.12: Transfers, total over lifetime of scheme (£ millions, 2025 prices, discounted)

		Scenario 1	Scenario 2	Scenario 3	Scenario 4
Businesses	Funding the benefits	1320	260	130	30
	Receiving the benefits	150	0	0	0
	Net Savings	-1170	-260	-130	-30
Households	Funding the benefits	710	140	70	10
	Receiving the benefits	1880	400	200	40
	Net Savings	1170	260	130	30

80. We assume businesses incur 65% of constraint cost savings. This is because constraint costs are charged as part of Balancing Services Use of Service costs (BSUoS). BSUoS are fees that electricity suppliers, generators and some large consumers (such as businesses) pay to the National Energy System Operator (NESO) to cover the cost of balancing supply and demand on the electricity network.

Table 1.13: Constraint Cost Savings, Total over lifetime of scheme (£ millions, 2025 prices, discounted)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Businesses	540	510	480	460
Households	290	270	260	250

Table 1.14: Summary of the Monetised Impacts on Businesses (£ millions, 2025 prices, discounted)

	Costs	Benefits	Net
All Impacts[38]			
Scenario 1	1570	690	-880[39]
Scenario 2	490	510	20
Scenario 3	350	480	130
Scenario 4	240	460	220

[38] 2025 prices, 2026 PV
[39] Business NPV, 2025 prices 2026 PV

Direct Impacts[40]			
Scenario 1	1330	150	-1180
Scenario 2	270	0	-270
Scenario 3	140	0	-140
Scenario 4	30	0	-30
Equivalent Annual Direct Impacts			
Scenario 1	110	10	-90[41]
Scenario 2	20	0	-20
Scenario 3	10	0	-10
Scenario 4	0	0	0

Table 1.15: Summary of the Direct Monetised Impacts on Households (£ millions, 2025 prices, discounted)

	Costs	Benefits	Net
Direct Impacts[42]			
Scenario 1	710	1880	1170
Scenario 2	140	400	260
Scenario 3	70	200	130
Scenario 4	10	40	30
Equivalent Annual Direct Impacts[43]			
Scenario 1	60	150	90
Scenario 2	10	30	20
Scenario 3	10	20	10
Scenario 4	0	0	0

Impacts on Billpayers

81. As discussed previously, this impact assessment assumes the scheme costs will be passed onto billpayers by electricity suppliers. To estimate the average annual household bill impact, we divided the costs and savings above, undiscounted, by total consumption in GB to arrive at a cost or saving per MWh of electricity consumed. Next, we used internal estimates of average annual household electricity consumption to estimate impacts per household.

82. Monetised impacts that will fall on electricity consumers who are not eligible for bill discounts are assumed to include:
    - the cost to fund bill discounts
    - the cost of earlier network investment if the policy reduces delays to network build
    - industry administration costs
    - constraint cost savings if the policy reduces delays to network build

Table 1.16: Average annual household bill impacts (2026 – 2035) discounted, 2025 prices[44]

[40] Direct Impacts for businesses are transfers to fund the scheme, industry administration costs and familiarisation costs
[41] EANDCB would normally display overall costs as positive but here we display overall costs as negative to maintain consistency with the display of other net impacts.
[42] PV Direct Impacts on Households
[43] Overall savings displayed as positive as above.
[44] Rounded to the nearest 10p

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Average annual cost (2026 – 2035)	£1.80 – 2.90	£0.30 – 0.70	£0.20 – 0.40	£0.05 – 0.20
Average annual savings (2026 – 2035)	£0.00 – 1.70	£0.00 – 1.50	£0.00 – 1.40	£0.00 – 1.30

83. This analysis suggests the average annual impact of the illustrative scenarios on consumers could be relatively small and may yield a net neutral impact if constraint cost savings are realised. However, this analysis is uncertain and dependent on an assumed relationship between improved community acceptability of network infrastructure, prevention of delays to network build and network constraint costs. This is highly uncertain because the estimated acceptance rate may not feed through to preventing delays 1:1 and there is a possibility that delays may not be prevented at all. For further detail on these assumptions please see section 'Risks and Assumptions'.

Switching Value Analysis

84. Recognising the inherent uncertainty associated with the analytical approach applied to this Impact Assessment, we have undertaken switching value analysis to demonstrate the estimated likelihood of reducing a 1-year delay, and hence reduction in constraint cost which would be required for the net impact of the bill discount scheme on the average annual household electricity bill to be "neutral" over 10 years. We determine "net neutral" to be the point at which the value of constraint cost savings balances out the costs associated with funding the scheme, assessed via the impact on average annual household bills over the period 2026-2035, as set out in section 'Impacts on billpayers.'

85. The results of this switching value analysis are set out in Table 1.17 and correspond to the central estimates for scheme cost and benefits for each indicative policy scenario. The results

Table 1.17: Switching Value Analysis - % reduction in modelled constraint costs required for "net neutral" average annual household bill impacts (2026 – 2035) discounted, 2025 prices

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Average annual cost (2026 – 2035)	£1.80 – 2.90	£0.30 – 0.70	£0.20 – 0.40	£0.05 – 0.20
% reduction in constraint costs assumed in this Impact Assessment	27%	24%	22%	20%
% reduction in constraint costs required for "net neutral" impact, 2026-2035	95 - 100%	15 - 20%	5 - 10%	< 5%

Distributional Impacts

86. This policy intends to redistribute funds from all electricity consumers to communities that are closest to new transmission network infrastructure. It is likely that new transmission infrastructure will primarily be sited in rural areas to transport electricity from areas of generation to areas of demand. The demographic of rural areas in Great Britain includes a higher proportion of those aged over 65 and 'white ethnic groups.' These groups are therefore more likely to receive community benefits. This impact cannot be mitigated given the need for new transmission infrastructure in rural areas.

87. As part of social research undertaken to inform policy development[45], three sample areas in the UK were identified to provide insights into areas which are likely to be impacted by energy infrastructure developments. These areas were:

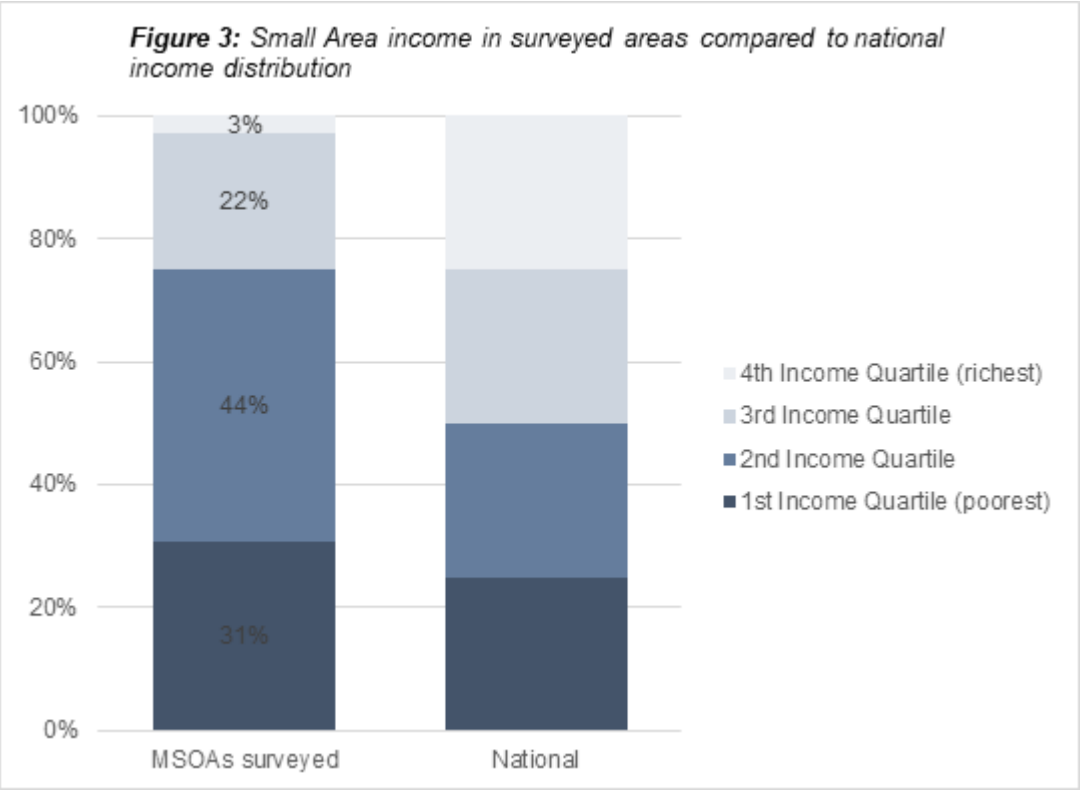
1. Lincolnshire county
2. East Suffolk, Dover and Thanet (Local Authorities)
3. Wards in the Inverness area (Keith and Cullen, Speyside Glenlivet, Forres, Nairn and Cawdor, Aird and Loch Ness, and all of Inverness)

88. These were selected on the basis that they are all distinct from each other in terms of the proposed infrastructure projects and their local population profiles (levels of deprivations, urban/rural, and attitudes towards local projects)[46]. We have looked at the average annual net household income for the small areas (Middle Layer Super Output Areas) which make up the surveyed regions 1 & 2.[47] Due to differences in how data is collected by the Scottish Government, we are unable to include region 3 in the following analysis.

89. In addition to the geographical limitations noted above, it is worth noting the following caveats to this analysis
    - These 2 regions are not necessarily economically representative of all areas that will see the construction of new transmission network infrastructure. There are many other areas where projects have been proposed.
    - This analysis covers regions wider than a 500m radius of proposed routes.

90. When compared to the national distribution for average annual net household income, areas in the surveyed regions were **likely to be poorer than the national average.** 75% of Middle Layer Output Areas (MSOAs) in surveyed regions fell below the national median and only 3% were in the richest quartile.

[45] Community benefits for electricity transmission network infrastructure https://www.gov.uk/government/consultations/community-benefits-for-electricity-transmission-network-infrastructure (January 2025)
[46] Community benefits for electricity transmission network infrastructure: social research, page
[47] Income estimates for small areas, England and Wales, financial year ending 2020, Table Net annual income https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/smallareaincomeestimatesformiddlelayersuperoutputareasenglandandwales (January 2025)



91. Given the caveats outlined above, **we cannot say conclusively that the benefits of the bill discount scheme will be weighted towards low-income households, but it does seem highly likely based on the available evidence.** Any increase in bills may disadvantage particular groups that are more likely to live in fuel poverty including disabled people, ethnic minorities, younger households and households with children and people under 24. This will be mitigated as our analysis suggests savings to bill payers could outweigh costs under some options.

92. There is a broadly positive relationship between household income and electricity consumption, with lower income households consuming less electricity on average.

93. This means that, under a unit pricing scenario, increases to electricity bills will broadly fall more on higher income households than those on lower incomes.

94. Constraint costs are paid for by bills on unit charging mechanisms. If the policy were to lead to reduced constraint costs, all households will experience the same proportional reduction or increase to their bill, but the data suggests that actual monetary value of those changes would be greater for households on higher incomes in general, although this will also hold true for lower income households with higher electricity usage.

95. In our illustrative policy scenarios, while it is assumed all GB electricity bill payers (including small, micro and medium businesses, subject to exemptions)[48] could incur additional costs initially, we expect these to be small and eventually we expect small,

[48] The minded to position is that energy intensive industries will not pay into the scheme so will not be affected by large initial costs.

micro or medium sized businesses to benefit overall under all options. Our analysis suggests that this policy could have a small or net neutral impact on GB electricity bill payers under the scheme if constraint cost savings are realised. This analysis however is uncertain and dependent on an assumed relationship between improved community acceptability of network infrastructure and prevention of delays to network build. This is highly uncertain because the estimated acceptance rate may not feed through to preventing delays 1:1 and there is a possibility that delays may not be prevented at all. For further detail on these assumptions please see section 'Risks and Assumptions'.

96. Currently, we assume that all energy consumers would pay the same rate per kWh of electricity consumed to fund this policy. This is an assumption, and the funding mechanism as well as any exemptions, additional to Energy Intensive Industries (EIIs) will be explored in more detail to accompany secondary legislation.

97. A scheme administrator will be responsible for data matching to identify eligible properties and their suppliers. A possible bill discount delivery mechanism is that the scheme will be funded by an obligation on electricity suppliers, who are expected to recoup their costs by passing them onto their customers through their bills.

98. There is a risk that small, micro or medium sized electricity suppliers may be affected if they are required to carry out excess administrative work to deliver benefits to eligible consumers who they supply. They may also face periods of debit and/or credit if there is a delay between payment to eligible consumers and reconciliation payments delivered by the scheme administrator.

99. There are 21 active licensed energy suppliers[49] and 12 large suppliers[50] hold 98.2% of the market share.[51] We will provide further analysis to assess the impact of the proposed scheme on small and micro-businesses in the Impact Assessment accompanying secondary legislation.

100. If some suppliers were excluded from delivering bill discounts, this perceived inequality in the implementation of the scheme could risk heightening tensions in communities towards infrastructure development which could in turn generate more community opposition. This would directly contradict the scheme's objectives, and it is crucial for our clean power and net zero ambitions that increased community opposition is avoided. It is therefore necessary that all eligible households receive the bill discount so all suppliers will be mandated to administer it. However, we recognise the impact of delivering the bill discount scheme may be felt differently across energy suppliers.

[49] Retail market indicators, https://www.ofgem.gov.uk/retail-market-indicators
[50] Large suppliers identified in https://www.ofgem.gov.uk/publications/outcome-2022-review-whether-conditions-are-place-effective-competition-domestic-supply-contracts pg14 Outcome of 2022 review into whether conditions are in place for effective competition in domestic supply contracts p.14 (January 2025)
[51] Retail market indicators, https://www.ofgem.gov.uk/retail-market-indicators (January 2025)

101. The reporting requirements of the scheme will be similar to existing reporting all suppliers submit for existing schemes, which is expected to reduce additional complexity. Ultimately, the experience is expected to vary across suppliers, dependent on their business model.

102. In the process of developing this scheme, we have taken learnings from other bill discount schemes including the Energy Bills Support Scheme (EBSS) and Warm Home Discount (WHD) which both used Ofgem reconciliation and data-matching mechanisms. The WHD has a minimum threshold of customers for mandatory participation of suppliers (initially 150,0000). However, the reforms to WHD in 2022 introduced data matching and automatic rebate distribution – two mechanisms that this scheme will use – and the reduction in administrative costs due to these reforms meant that the threshold for mandatory participation was decreased to 50,000 customers.[52] The EBSS required all suppliers to participate.[53] Existing mechanisms should sufficiently reduce the administrative burden and barrier to entry on suppliers that the risk of heightened community opposition exceeds that of the risk to small, micro and medium sized businesses. There is also an incentive for suppliers to deliver the bill discount scheme as cost effectively as possible to maximise their competitiveness.

103. Based on previous schemes, we have assumed an industry administration cost of between £1.60 - £2.89 per household per year with total administrative costs of up to £7million, depending on the eligibility scope of properties. We have assumed that these costs will be passed onto consumers, but this is at the discretion of the supplier. These costs have been included in the bill impact calculations.

104. Whether non-domestic properties (NDPs) will be eligible to receive bill discounts will be defined in secondary legislation. Our minded to position is that if non-domestic properties were included in the scope of eligibility, they would have to opt in to receive the discount. These opt-in applications would be managed and verified by a scheme administrator. Since the small electricity suppliers are predominantly non-domestic suppliers, we expect that this will further reduce the administrative burden on SME suppliers.

105. To ensure equal treatment of all customers and energy suppliers, the Government's approach to delivering the bill discount scheme has been designed to bring as much alignment between different payment types as possible. However, we recognise that exact alignment is not possible due to the characteristics of different payment types. In addition, we also recognise the different ways of working and business models of energy suppliers across the market. We are still designing the delivery mechanisms for those properties which do not have a direct relationship with a supplier, but we will continue to inform our decisions based on consultation with suppliers, consumers and other stakeholders. We will also review monitoring and evaluation information from existing bill discount schemes (such as EBSS and WHD) to ensure that any additional delivery obligations placed on suppliers are proportionate and do not unnecessarily burden small,

[52] Warm Home Discount, Better targeted support from 2022, Final Stage Impact Assessment pp. 37 – 38
[53] Energy Bills Support Scheme (EBSS) Final Stage Impact Assessment pp. 24 – 25

micro and medium sized suppliers. Further analysis will be set out alongside secondary legislation in due course.

Business Environment

106. We do not expect primary legislation to have any significant impact on the business environment of the UK. However, an improvement in community acceptability towards infrastructure and a reduction in opposition could improve the attractiveness of investment in transmission infrastructure.

Environment: Natural Capital Impact and Decarbonisation

107. Rapid expansion of the transmission network will be a key driver in the Government's Clean Power 2030 mission to enable new connection of renewable generation. Upgrades to the grid will also reduce thermal constraints to the network which typically lead to an increase in emissions due to gas generation. When a thermal constraint occurs on the grid, generators close to the source of highest demand (Southeast England) are turned on while generators further from the source of demand (behind the constraint) are turned off. The boundary between Scotland and England frequently experiences thermal constraints and wind power in Scotland is turned off as a result. Gas generation in England is typically turned on. This means that we produce emissions despite having sufficient renewable generation capacity to meet demand. Increasing the capacity of the grid will ensure that as much renewable generation as possible can be used.

108. New transmission network infrastructure may have impacts on natural capital as overhead lines, pylons and substations will affect the appearance and use of the areas where they have been established. We expect these to be predominantly rural areas. During construction of the infrastructure, there may also be impacts on wildlife. If this policy achieves its objective of speeding up infrastructure delivery, these impacts may occur earlier, but these impacts would still occur in the do-nothing scenario.

Risks and Assumptions

The below risks and assumptions should be considered when interpreting this analysis.

Risks

109. Likelihood of preventing delays to network build – the analysis uses an assumption of the likelihood of preventing a 1-year delay to network build and applies this to estimate earlier network investment costs, constraint cost savings, and emissions savings. The likelihood of preventing delays was estimated using the proportion of survey respondents who said the level of benefit in each option would make the infrastructure more acceptable. This was used as a proxy for the likelihood of preventing a 1-year delay. This is highly uncertain because the estimated acceptance rate may not feed through to preventing delays 1:1 and there is a possibility that delays may not be prevented at all.

110. Distance from the infrastructure for direct benefits (ranging from 200m to 500m in the indicative policy scenarios) were not specified in the survey and instead, respondents

were given scenarios to consider. We have used the scenarios most closely fitted to these distances as a proxy.

111. The survey was designed to provide data representative of three case study areas where transmission infrastructure projects have been proposed, rather than nationally representative data. It is possible that other communities may have responded differently.

112. In a survey people may struggle to conceptualise sums of money when assessing the level of benefit required to help make a hypothetical transmission infrastructure project more acceptable. Outside of a research setting they may respond differently. This was also raised by some workshop participants.

113. Fairness, well-being & support – monetised benefits only capture the benefits of preventing a 1-year delay. This does not capture that a higher level of benefit may lead to increased fairness, well-being, and general support for the energy transition and transmission network infrastructure.

114. This impact assessment is based on our current assessment of the delivery dates of transmission network projects. There will be projects that begin construction early in the lifetime of the scheme and so will be in scope to have associated bill discounts but will be out of the planning and consenting phase and so any delays will have already occurred prior to the start of the policy. These projects would have been included in the modelling for additional constraint costs caused by a 1-year delay but will not be affected by the policy. This could lead to us overestimating our constraint cost savings due to this policy. Benefits realisation is a key area of uncertainty in this policy and more detailed analysis into the monetisable benefits of this policy will accompany secondary legislation.

115. Administration costs & familiarisation costs – evidence to quantify these costs was limited. In addition, the appropriate wage level and the number of people per business or organisation used to estimate familiarisation costs is highly uncertain. This is low risk given relatively low cost.

Assumptions

116. The proposed scheme would be funded by an obligation on electricity suppliers, who are expected to recoup their costs by passing them onto their customers. This impact assessment assumes all costs will be passed onto electricity billpayers.

117. Length of prevented delays to network build: the analysis estimates a likelihood of preventing a 1-year delay to network build and applies this to earlier network investment costs, constraint cost savings, and emissions savings. There is limited evidence to understand the length of delays this policy may prevent and 1-year has been assumed based on some evidence on the length of historical Judicial Reviews (JRs). In addition, community benefits are only one component in preventing delays to network build and this policy alone may not prevent delays without reforms elsewhere in the end-to-end process for transmission network projects.

118. The social research survey did not directly ask about levels of bill discount (as opposed to direct payments) so we have assumed the acceptance for bill discounts would be the same as the equivalent level of direct payment.

119. Number of households eligible for direct benefits: to calculate this, we assume an average number of homes per km of transmission line based on a study by NGET on the number of homes near NGET power lines, which covers England and Wales only.

120. This assumes that the number of homes per km of transmission line in England and Wales is the same as Scotland, which may result in an over-estimate of the number of eligible households since Scotland is less densely populated. It also assumes that the number of homes per km of existing power lines will be the same for new power lines, which may result in an under-estimate of the number of eligible households due to growth in housing stock. However, this is mitigated as an annual housing stock growth assumption is applied across the appraisal period. We also apply a range of -20% and +20% to reflect uncertainty.

121. Delay to savings being incurred: we have assumed that there will be no benefits due to reduced constraint costs or emissions savings until 2030. Benefit realisation is dependent on affected infrastructure being operational. This is a simplistic approach and further analysis in secondary legislation would consider whether a more disaggregated approach which incorporates a delay to the realisation of benefits associated with each infrastructure project is feasible.

122. Constraint cost savings if a 1-year delay is prevented: to estimate this, NESO shifted network boundary capability in their Leading the Way (LW) Future Energy Scenario (FES) back by 1 year.

- This is a simplistic approach and uses different net zero scenarios to those used by the department. It assumes all generators connect as assumed in the LW scenario and they are not subject to a delay as a result of connection works being delayed. This could result in an over-estimate of constraint cost savings if a generator connecting ‘behind’ a constraint were delayed as this would mean they are not connected to the system to receive constraint payments.
- However, this potential over-estimate of constraint cost savings is mitigated by the fact that the benefits of shorter network connection times for new low carbon generation are unquantified. If quantified, this benefit may offset the potential over-estimate of constraint cost savings.
- This approach also neglects to change the boundary capabilities with changes in the generation. For example, it could be the case that the addition or removal of a generator changes the balance of power flows on circuits crossing a boundary such that the boundary capability increases or decreases despite there being no physical change to the transmission assets.
- The constraint cost saving estimate is therefore heavily caveated but provides an indication of the sort of effects preventing delays to network reinforcements could represent.

Monitoring and Evaluation

123. We intend to undertake robust and proportionate monitoring and evaluation for this policy, in line with HMT Green Book and Magenta Book guidance. This will include monitoring to enable us to understand how the policy is being implemented, as well as wider monitoring to support understanding of the outcomes and impacts of the policy. This is likely to include collection of administrative/ delivery data from scheme delivery partners and may also include primary data collected from stakeholders including those in receipt of bill discounts and other stakeholders such as developers. It is anticipated that a comprehensive programme evaluation will be undertaken to provide lessons to inform and improve delivery and future policy development, as well as to provide accountability.

124. We expect that process, impact and value-for-money evaluation will be undertaken. Depending on timelines, this could include multiple process evaluations to iteratively learn and adapt delivery. It may also include interim and final impact evaluations. The final impact and value for money evaluation would be expected to take place five years after the scheme is implemented, but this is subject to change depending on how long the scheme runs for (process evaluations would be undertaken sooner e.g. beginning in the first year of the scheme).

125. The types of evaluation questions that will be addressed include:
- Was the intervention delivered as intended? Was there enough resource?
- What worked well, or less well? What could be improved?
- What can be learned from the delivery methods used?
- Did the intervention achieve the expected outcomes?
- To what extent have different groups been impacted in different wats, how and why?
- What generalisable lessons have we learned about impact?
- How cost-effective was the intervention?
- What was the value-for-money of the intervention? What are the benefits? What are the costs? Do the benefits outweigh the costs?

126. Understanding the impact of this policy will be vital, in particular with regard to whether the assumptions that improving acceptability via bill discounts reduces delays to transmission project delivery. This is a key evidence gap which this programme provides opportunity to address. Moreover, given that this policy will be ultimately funded through consumer bills and will place additional regulatory requirements on suppliers, it is essential that it can evidenced whether the policy is having the intended impacts, and not having unintended consequences.

127. Given that a large-scale programme evaluation is expected, it is expected that the data collected via the evaluation will be sufficient for the post-implementation review template (PIR expected 5 years after scheme launch). We will also liaise with Central Analysis to understand to what extent a PIR is required given the scale of evaluation that will be undertaken.

128. A detailed monitoring and evaluation plan will be developed as part of the business case process once decisions have been made for the final policy approach. It is expected

that the evaluation will be commissioned to an independent external consultancy via a competitive procurement process. The evaluation should be funded through as part of the programme costs.