Common appendix and glossary to accompany all DSO performance panel submissions

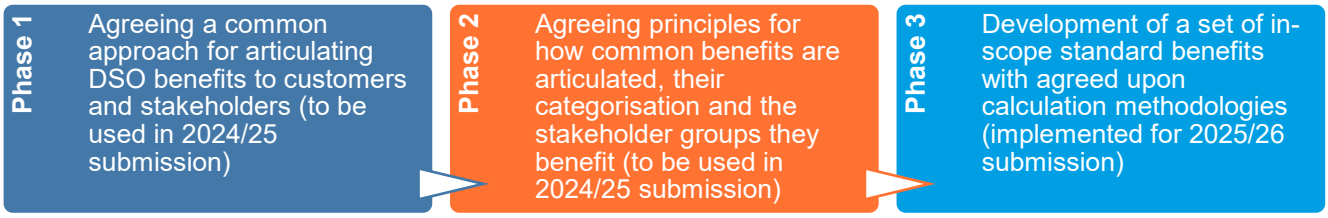
Energy Networks Association
April 2026 | Version 2

Purpose of this document

The Distribution System Operation (DSO) Performance Panel's independent feedback set a clear expectation for greater rigour in demonstrating and quantifying benefits, including those for consumers. It was also noted that inconsistencies in the submissions created challenges for stakeholders in understanding and differentiating key information across organisations.

In response, the DSO Collaboration Forum is a joint initiative between the six DNO licensees of Great Britain, facilitated by the Energy Networks Association (ENA). All members have proactively collaborated on a phased development of a common approach (see below), prioritising clarity of language as the foundation for enhancing stakeholder confidence in the accuracy, comparability, and contextual understanding of reported benefits.

Figure 1: Phased approach undertaken by the DSO Collaboration Forum



This Version 2 of the common appendix, co-drafted by all DNOs, will be jointly submitted to the DSO Performance Panel on 30 April 2026 and published to provide stakeholder visibility. It accompanies this year's DSO Performance Panel submissions and provides context for benefit quantification in the 2025/26 submissions, alongside an update on work undertaken through the DSO Collaboration Forum.

This version builds on the appendix published last year and progresses the programme of work responding to the Panel's feedback. For completeness, a summary of the Phase 1 and Phase 2 outputs is included, as these established the foundations for Phase 3, which focuses on the standardisation approach delivered this year to improve consistency and comparability across network submissions.

We thank Ofgem for agreeing in principle to the inclusion of the appendix in the evidence provided, and we appreciate the Panel's consideration during the 2025/26 evaluation.

Common Approach - 'An outside-in perspective' (Phase 1)

The feedback received from the DSO Performance panel has informed the design of our approach, which has included a focus on clarity of language as the starting point for generating increased stakeholder confidence in the accuracy, comparability, and contextual understanding of reported benefits.

In coming together, ENA members identified the need to better articulate an outside-in view of what DSO means to consumers, rather than the traditional inside-out perspective focused on the technical roles of planning and network development, network operation, and market development.

There is consensus that DSOs play a crucial role in reducing the cost of the energy transition and, increasingly, there is recognition that DSOs can deliver greater value by focussing on accelerating decarbonisation to support delivery of Government targets. It is therefore imperative that DSO activities enhance the ability of individuals and organisations to contribute to achieving net zero. To achieve this, DSOs must collaborate with stakeholders, leveraging data to adopt a whole-system approach in planning and operating the network, where the needs and interests of the end consumer take priority.

It is essential to clearly identify the beneficiaries of any DSO activities. Developing a shared understanding of the various customer and stakeholder groups, along with their needs, is crucial for effectively measuring and building stakeholder confidence in the accuracy, comparability, and contextual understanding of reported benefits.

Common Stakeholder Groups

The value created by DSO activities is presented through different customer and stakeholder groups, enabling reliable and trusted comparisons where benefits are commonly tracked across networks.

Following best practice sharing and a review of the DSO 2023/24 submissions, a list of common stakeholder groups was agreed upon, based on data and insights about their behaviours, needs, and challenges. The six common stakeholder groups are listed below, noting the differentiation between end consumers, as the primary beneficiaries of DSO activities through improved service quality and lower bill impacts, and facilitating parties who benefit due to enhanced grid transparency and data, and improved integration of renewable energy sources.

Table 1 outlines the common groups across GB and their associated needs, which inform the activities performed by DSOs to address them. While the table highlights key needs that are broadly shared, it is important to recognise the diversity of customer needs across different licences and organisations. DSOs maintain ongoing engagement programmes to ensure their services remain responsive to evolving needs.

Table 1: Shared needs of DSO stakeholder groups across GB

Category	Stakeholder groups	Salient common needs from the DSO
Consumers	• Domestic Customers	• Cost savings on energy bills. • Education and ongoing support. • The ability to connect low-carbon technologies (LCTs), such as heat pumps and electric vehicle (EV) chargers, without delays and at an affordable cost. • Accessible flexibility opportunities to make/save money.
	• Commercial and Industrial Customers	• Cost savings on energy bills. • Ability to connect LCTs without delays and at an affordable cost. • Transparency regarding constraints. • Accessible flexibility opportunities. • Access to data and support in interpreting it.
Facilitating parties	• Flexibility Service Providers and Aggregators	• Suitable revenue opportunities and ease of participation in flexibility markets. • Consistency in data, services across networks, and regulatory frameworks. • Data provided in various formats to accommodate different needs.
	• National Energy System Operator (NESO)	• Standardised data across networks. • Access to and coordination with distributed energy resources (DERs) across networks to manage constraints at a national level.

		• Clear and consistent market coordination
	• Distributed Energy Resource	• The ability to identify viable revenue opportunities using up-to-date network data, including current and future constraints. • Minimised operational costs through the efficient use of standardised data.
	• Local Authorities	• Information and data on the network, including current and future constraints, opportunities for LCT connections at a local, granular level, and near real-time updates. • Tailored engagement with the DSO on local area energy planning.

The list of common stakeholder groups above is not exhaustive. Some members have identified additional groups or added sub-groups to those listed. However, it is proposed that all DSOs will reference, as a minimum, the above common personas in their submissions to promote transparency and accessibility.

A principles-based approach to measurement (Phase 2)

The common stakeholder group approach offers an outside-in perspective, allowing customer and stakeholder groups to collaborate with networks to decarbonise, promote economic growth, and provide affordable infrastructure critical to achieving net zero. To support this, members have widely adopted the theory of change model (see Figure 2 for the minimum type of information needed to present a theory of change), providing a structured framework for describing DSO benefits and linking those benefits to DSO activities.

This model also helps differentiate between the facts and figures related to activities or outcomes and the actual benefits they generate.

Figure 2: Simplified Theory of Change model

Year-one submissions and subsequent engagement reaffirmed that, while DNOs share a common understanding of DSO stakeholder groups, the inputs and activities used to drive outcomes and benefits continue to vary. Therefore, in this phase members initially focused on standardising the language used to contextualise results (outputs, outcomes, and benefits) linked to stakeholder groups.

Ideally, when measuring benefits, clear key performance indicators will drive the calculation of benefit value; however, this is not always the case. In some instances, a more indirect approach will be used, and in certain cases, it may not be possible to quantify benefits, requiring a qualitative approach instead. When describing benefits, DSOs must be transparent about the basis of their claims. To establish a credible understanding and categorisation of where DSO benefits lie, two key benefit categories have been identified:

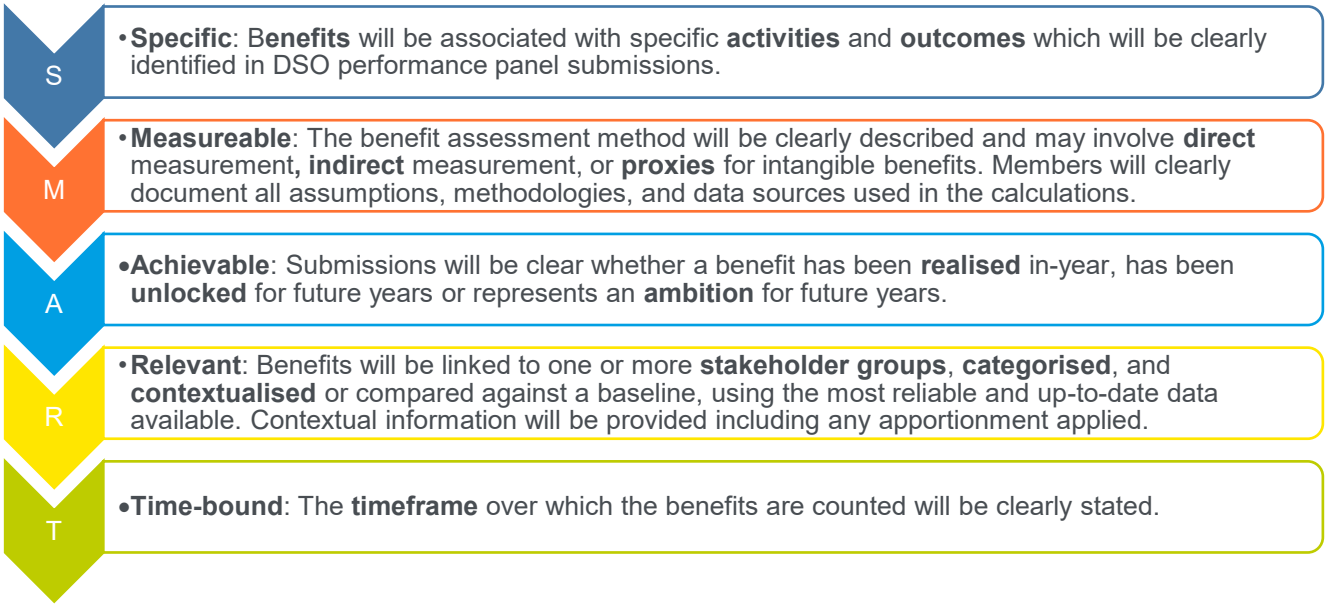
Table 2: Common DSO benefit categories

Category	Description	Example
1. Direct Benefits	Benefits derived from outcomes that are directly attributable to an activity or investment. There is a clear cause and effect relationship. These benefits are quantified using available values, relying on limited assumptions.	Cost savings to domestic customers through deferral of network reinforcement.
2. Indirect Benefits	There are two types of indirect benefit: • Benefits which are secondary effects resulting from an outcome that is not directly linked to the activity or investment but occurs because of it. These benefits are quantified using third-party analysis or data, or by using assumptions. • Benefits to wider society, representing positive impacts that extend beyond the immediate effects of a specific activity or investment. These benefits are measured using proxies where possible; otherwise, qualitative evidence may be provided.	Accelerating connections has the direct benefit of creating revenue for commercial customers, with an indirect benefit of reducing wholesale energy costs for domestic customers. Carbon emissions reduced from accelerated connections.

These categories, which members will consistently reference across this year's submissions, describe how the benefits are realised. When paired with the DSO stakeholder groups, they highlight the value of each benefit for specific segments. While the range of benefits reported may vary between organisations, the language and categorisation used have been standardised this year for consistency.

To ensure comparability, members have agreed to clearly define the basis for their benefit calculations. From the 2024/25 submissions onwards, any quantified DSO benefits will adhere to the following universal principles (terms in bold are defined in the Glossary):

Figure 3: Universal principles for the articulation of DSO benefits



Members will apply these principles for each benefit and the figures presented in their performance panel submissions. This may be achieved through the main narrative, charts, summary tables, footnotes, or a benefits-related bespoke appendix. This foundational step supports the DSO Performance Panel in ensuring comparability and provides transparency regarding the basis for calculations.

If members choose to provide a Net Present Social Value (NPSV) figure for benefits, figures should not include transfers of resources between stakeholder groups (although members may still provide this information for additional context elsewhere).

In addition, members will adopt the standardised language and definitions outlined in the Glossary to explain the outcomes and benefits delivered to common DSO stakeholder groups.

Descriptive parameters

When describing activities, outcomes, or benefits, it is essential to provide sufficient detail about how figures and values have been calculated. Table 3 outlines common parameters that members are expected to include to ensure clarity and comparability for readers, whether presented through the main narrative, charts, summary tables, footnotes, or a dedicated benefits-related appendix. This list is not exhaustive, and organisations may provide additional information to aid clarity.

Table 3 – Descriptive parameters

Parameters related to activities/outputs	Parameters related to outcomes/benefits
Capacity of flexibility services procured (MW)	Net savings (£)
Volume of flexibility services utilised (MWh)	Net present value (£)
Connections capacity accelerated (MW)	Real or nominal cost base (£)
Capacity of flexible connections (MW)	Assumed deferral period (Yrs)
Absolute (MWh) or % reduction to curtailment	Time period connection has been accelerated (Yrs)
Carbon calculation method	Unit cost rate for renewable capacity (£/KWh)
	Unit cost rate for counterfactual (£/KWh)

The transparency achieved by members clarifying the descriptive parameters used as the basis for calculations in the 2024/25 DSO Incentive Submissions served as a foundation for more detailed work in 2025/26.

Development of a set of in-scope standard benefits (Phase 3)

Introduction and purpose

The DSO Performance Panel's feedback for 2024/25 invited greater alignment in how networks quantify carbon and societal benefits and encouraged clearer articulation of how DSO activities translate into consumer benefits. The Panel also recognised the progress made through collaborative work and indicated that further standardisation would support closer comparison of submissions.

In response, networks worked collaboratively to develop a more consistent approach to benefit calculation, with the aim of addressing the Panel's feedback and improving comparability across the 2025/26 submissions.

Standardisation scope

The scope of the DSO standardisation project focuses on improving consistency in how direct social benefits arising from DSO activities are identified and quantified. Direct social benefits are those that accrue to bill payers and the environment as a direct result of DSO actions.

Indirect social benefits, which capture wider second-order impacts, for example to commercial market participants, were outside the scope of Phase 3. Similarly, non-social benefits that accrue primarily to the network or its shareholders — such as the proportion earned by the network company from avoided capital expenditure from deferred reinforcement — are also excluded from the standardisation framework.

Networks may continue to report these indirect benefits where relevant, but the focus of this work was to establish a consistent approach to identifying and presenting the direct societal value created by DSO activities, improving transparency and comparability across submissions.

The agreed scope covers nine standardised benefits grouped under three core DSO outcomes. The outcomes were drawn from analysis provided by the networks themselves, based on an initial materiality assessment.

Sirio, an independent consultancy, ran further analysis within each outcome to identify the benefits commonly reported and carrying the greatest financial weight. The final list of nine benefits represents the areas where standardisation would deliver the greatest improvement in consistency and comparability across submissions.

The DSO has discretion over which benefits to report, but where this includes a standard benefit then the DSO will follow the standard methodology in 2025/26 onwards.

The three outcomes and their associated benefits are presented in Tables 4–6 below:

Table 4: Outcome 1 - Accelerating DER connections

Standardised benefits	Description
Operational carbon savings	Reduction in the average carbon intensity of electricity generation as a result of earlier connection of DERs, displacing fossil-fuel generation.
Reduced customer bills (via network charges)	Reduction in customer bills due to lower capital expenditure resulting from avoided or deferred reinforcement costs and efficiencies (e.g. Active Network Management).
Reduced customer bills (via wholesale)	Reduction in customer bills due to lower wholesale electricity costs as a result of earlier connection of DERs, displacing fossil-fuel generation.

Table 5: Outcome 2 – Deferring reinforcement

Standardised benefits	Description
Carbon savings	Reduction in embedded carbon emissions resulting from the deferral of network reinforcement.
Reduced customer bills (via network charges)	Reduction in customer bills driven by cost savings from deferred network reinforcement.

Table 6: Outcome 3 – Outage management and optimisation

Standardised benefits	Description

Operational carbon savings (reduced curtailment)	Avoided average grid emissions resulting from reduced curtailment of DER generation during outages.
Reduced customer bills (via network charges)	Reduced network operating costs from avoided site visits to investigate and resolve voltage complaints.
Avoided customer interruptions	Reduction in the number and duration of customer interruptions associated with planned and unplanned outages.
Reduced customer bills (via wholesale)	Avoided higher-cost marginal generation through reduced DER curtailment during outages.

Across the three outcomes and nine benefits, networks agreed to standardise 13 methodology elements to improve the consistency and comparability of the values reported. These elements cover both general methodology requirements (applicable to all benefits) and benefit-specific requirements (applicable to individual benefits). These are set out below:

Table 7: Core methodology elements that have now been standardised

General elements	Description of approach
Price base	Report all headline social benefits in 2020/21 prices.
Inflation data	Convert nominal values to real terms using the latest release of the Ofgem ED2 PCFM.
Discounting of benefits	Benefits within the ED2 period must be reported on an undiscounted basis (i.e. not in present value terms).
Alignment of carbon prices and conversion factors	Values used to quantify carbon benefits should be based on the figures provided in the Green Book supplementary data tables for valuing energy use and greenhouse gas emissions for appraisal.
Matching of carbon and societal benefits	If an investment produces both primary and carbon benefits, both must be reported separately using the same appraisal assumptions. Indirect or unquantifiable carbon benefits may be partially reported if clearly stated or not reported if explained.
Net vs. gross	Standard headline social benefits must be reported in net terms.
Publishing assumptions	Networks are encouraged to publish assumptions.
Definition of Direct Social Benefits	Direct social benefits are benefits that accrue to billpayers and the environment.
Inclusion of 'wider' societal benefits	Include wider societal benefits only where they can be robustly evidenced using Green Book-compliant methods or proxies. Where monetisation is not proportionate, benefits may be reported qualitatively.

Table 8: Benefit-specific methodology elements that have now been standardised

Benefit-specific Elements	Description of approach

Benefit description	Align benefit descriptions with a theory of change structure (activity -> outcome -> benefit -> beneficiary).
Benefit duration	Apply a fixed, explicit benefit duration aligned to the period over which the benefit would arise under the counterfactual.
Measurement of counterfactual	The counterfactual should represent what would have happened in the absence of the DSO activity. All benefits must be measured relative to this counterfactual, with timing aligned to when impacts would otherwise have arisen.
Sharing of network benefits with customers	Benefits should be explicitly attributed to consumers where the value ultimately accrues to them. Networks should apply an appropriate sharing factor to allocate the portion of benefits that flow to customers and exclude any benefits that accrue to the network itself.

In developing these elements, the Group sought, wherever possible, to align the approach with recognised good practice and relevant governance and guidance (e.g. HMT Green Book, DSO Incentive governance arrangements, the Common Appendix). This helps ensure the methodologies applied across submissions are consistent and aligned with wider industry practice.

What next?

All networks will apply the 13 agreed methodologies across benefits reported under the three outcome areas and for any of the nine benefits included in their 2025/26 submissions.

Where networks report additional benefits beyond the standardised set, these will be clearly defined and explained. This will allow the Panel to distinguish between benefits calculated using the agreed common framework and those that reflect company-specific approaches or emerging areas of analysis.

While the standardisation exercise does not make all benefits directly comparable on a like-for-like basis, the elements agreed represent an important step forward and will enable the Panel and other stakeholders to make more consistent comparisons across submissions. Networks will remain open to refining and expanding the standardised framework in response to future feedback from the Panel and other stakeholders.

Glossary - Common language for performance panel submissions

The following definitions have been developed to establish consistent language and practices in describing DSO benefits.

Term	Meaning
Accelerated	The process of bringing-forward an activity or event which would have otherwise occurred at some time in the future. For an activity, outcome or event to have been accelerated there should also be a counterfactual.
Access (Network)	Network access rights define the nature of users' access to the network and the capacity they can use – how much they can import or export, when and for how long, and whether their access is to be interrupted and what happens if it is. Network access requires a connection from the user's equipment to the wider network, and then allocated capacity

	on the wider network. For most users, their network access is defined via their connection agreement.
Activity	The performance of tasks or other action in pursuit of specific goals or outcomes
Ambition	In relation to the measurement of benefits, "Ambition" means benefits where the activities undertaken are expected to result in value being accrued in future years but lacking the certainty of '**unlocked**' benefits. For example, this category would include improvements to network access that are expected to accelerate future customer connections but that cannot be allocated to specific existing connection applications.
Bill saving	The saving to the electricity consumer through their total electricity bills.
Benefit	The value that accrues to stakeholders through activities carried out by the DSO. This can be translated into a financial benefit or may be described as an intangible benefit.
Counterfactual	Used to describe the conventional solution that is used to compare alternative solutions to in the context of benefits. For example, the counterfactual solution of conventional reinforcement would be compared against commercial or smart alternative solutions.
Reinforcement Deferred	Reinforcement that is identified as being required to relieve an existing network constraint or facilitate new load growth, but which is deferred as a result of the procurement and management of flexibility services.
Direct	Clear conversion of an outcome to a benefit, which has a clear cause and effect relationship and is usually measurable.
Indirect	Conversion of an outcome to benefit that arises as a secondary effect. Sometimes these benefits are less tangible or more difficult to measure.
Net Present Social Value	The value of all benefits, less all costs, in each year when discounted can be added together because they are in present value (discounted) terms, and then represent net cost benefit (benefits minus costs)
Outcome	An observable change that has occurred, is expected to occur, as a result of DSO actions taken. For example, products or services delivered to stakeholders.
Proxy	Where no direct measurement of benefits can be made, nor appropriate assumptions can be made, an appropriate reference value may be adopted to represent and estimate the value.
Realised	In relation to the measurement of benefits "realised" means benefits where the activities taken have resulted in value accrued to the network or relevant stakeholder group.
Timeframe	The time period for which a benefit is reported, Realised, Unlocked, or forecasted as a future Ambition.
Unlocked	Refers to the status of a benefit, indicating enough certainty to assume that the benefit will be Realised at a future date.

Our members and associates

Membership of the Energy Networks Association is open to all owners and operators of energy networks in the UK.

- Companies which operate smaller networks or are licence holders in the islands around the UK and Ireland can be associates of ENA too. This gives them access to the expertise and knowledge available through ENA.
- Companies and organisations with an interest in the UK transmission and distribution market are now able to directly benefit from the work of ENA through associate status.

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Energy Networks Association
4 More London Riverside
London SE1 2AU
t. +44 (0)20 4599 7700
w. energynetworks.org
@EnergyNetworks