Open Networks programme

Consultation on high-level scope for 2022

October 2021 | Version 1

Table of Contents

Executive Summary

The Open Networks programme has typically published its near-final scope in the form of a detailed Programme Initiation Document (PID) at the start of each year, with a consultation in the first quarter to seek industry views. As part of the Q1 2021 PID consultation, stakeholders said they would like to be engaged earlier in the scope development process and the PID finalised earlier.

Acting on this feedback, we decided to bring the scope development process forward and are consulting with this preliminary **high-level scope** document, that sets out our current best view of the 2022 scope, key areas of focus and priorities. We welcome stakeholder feedback on the key areas of work identified for next year and will use this to shape the final PID later this year.

Through its work over the years, Open Networks programme has introduced real momentum into the transition to a smart and flexible energy system and has set out a clear, least regrets, delivery pathway. With over 3GW of flexibility available for tender in Great Britain this year, the programme's work has helped the UK to establish world leading local flexibility markets.

Whilst good progress is being made in 2021, there is more to do and 2022 will be another important year for the programme as it ramps up its efforts to enable Net Zero. The recent Ofgem and BEIS Smart Systems and Flexibility Plan[1] reiterates these challenges and has given Open Networks the mandate to deliver a common framework for flexibility by 2023. The Smart Systems and Flexibility Plan has been a key input into the scope development process and has guided prioritisation and has directly informed the scope set out in this document. Flexibility remains one of our largest and most important areas of work next year and this scoping document provides our best view of the priority areas that can be delivered realistically, with the available resources.

Open Networks has engaged closely with stakeholders over the years and, whilst this has generally worked well, we believe that more will be needed next year. We are revising our governance to enable us to work more collaboratively with industry in developing our flexibility proposals. We are setting up a Challenge Group to give stakeholders a greater voice in the programme with a focus on challenging and shaping the work of the Open Network programme. A call for participation is currently open and we are welcoming applications from interested industry stakeholders. A Dissemination Forum, for engagement on broader topics, will also be introduced in 2022 for anyone to join. Additionally, we will continue to offer stakeholders the option to join User Forums and work alongside our product teams to undertake development of key proposals.

The Open Networks programme continues to have the commitment of the Business Leaders within network companies to deliver this workplan next year.

Below is a summary of the workstreams and scope set out for 2022 with more information available in later sections of this document:

- **Flexibility Services (WS1A)** will deliver a common framework for flexibility services to increase alignment across DNOs and the ESO. This will include further development of the Common Evaluation Methodology, alignment of processes (including pre-qualification) and timescales, standard agreement, primacy rules for service conflicts, defining new products and refining existing ones, and improving ANM curtailment

[1] https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021

information. WS1A will also undertake work to develop a carbon reporting methodology and will commence work to review dispatch interoperability and settlement processes.

- **Whole Electricity System Planning & T-D Data Exchange (WS1B)** will continue to improve interaction and co-ordination between electricity transmission and distribution networks, progressing functions fundamental to flexibility, such as network operations, planning and forecasting. WS1B will deliver more alignment across forecasting and Future Energy Scenario processes, further improve operational planning through enhanced DER visibility and greater sharing of operational data. WS1B will also continue to support the development of reporting against new licence conditions including Network Development Plans and whole electricity system coordination.
- **Customer Information Provision & Connections (WS2)** will continue to focus on improving both the visibility of data and the connections' processes. WS2 will work with the Data and Digitalisation Steering Group to deliver the Embedded Capacity Register as an end-to-end database solution. WS2 will continue to monitor the implementation of queue management and interactivity processes and will also implement recommendations from the review of connections' agreement in Dec 2021.
- **DSO Transition (WS3)** will continue to provide an overarching role to monitor and steer Distribution System Operation developments. It will continue to provide visibility of progress being made by the networks through the DSO Implementation plan and work with the industry to identify potential conflicts of interest and unintended consequences in the transition.
- **Whole Energy System (WS4)** will continue to be managed as a joint workstream, with ENA's Gas Goes Green project, to improve interactions between electricity and gas networks. WS4 will further develop the Whole System CBA framework, proposals for a whole system optioneering service for local authorities and monitor trials of coordinated approaches to sharing of regional data. Additionally, WS4 will have a key role in shaping local area energy planning frameworks and develop best practice and guidance for local authorities that are looking to introduce plans for decarbonisation.
- **Communications and Stakeholder Engagement (WS5)** will continue to promote stakeholder engagement and support the development and delivery of the programme's communication plan.

Consultation

We welcome all feedback from the industry on our proposed work for 2022 as set out in this preliminary high-level scope document.

This consultation will be open for four weeks and closes on **16th November 2021.** Please send your responses to the consultation by email to opennetworks@energynetworks.org.

The project team and workstream leads will be hosting a public webinar on **Tuesday 2 November 14:00 – 16:00** to run through the document, along with holding an interactive Q&A, and we would welcome any interested stakeholders to join. You can register for this on ENA's website.

It is our intention to review the consultation feedback and publish our response, alongside the 2022 Programme Initiation Document, early next year on ENA's website. All stakeholder responses will be published unless explicitly marked as confidential.

Energy Networks Association

Energy Networks Association (ENA) represents the owners and operators of licences for the transmission and/or distribution of energy in the UK and Ireland. Our members control and maintain the critical national infrastructure that delivers these vital services into customers' homes and businesses.

ENA's overriding goals are to promote UK and Ireland energy networks ensuring our networks are the safest, most reliable, most efficient and sustainable in the world. We influence decision-makers on issues that are important to our members. These include:

- Regulation and the wider representation in UK, Ireland and the rest of Europe
- Cost-efficient engineering services and related businesses for the benefit of members
- Safety, health and environment across the gas and electricity industries
- The development and deployment of smart technology
- Innovation strategy, reporting and collaboration in GB

As the voice of the energy networks sector, ENA acts as a strategic focus and channel of communication for the industry. We promote interests and good standing of the industry and provide a forum of discussion among company members.

ENA's Open Networks programme is one of the strategic initiatives that we lead on behalf of our members to enable the transition to a smart and flexible energy system to enable Net Zero.

Purpose of this high-level scope document

This is a high-level scope document that sets out our best view of the key areas of work and priorities for next year. This has been introduced in response to feedback where stakeholders have said that they would like the Open Networks programme to consult on its scope earlier. This document is a precursor to the formal Programme Initiation Document (PID) that will be finalised and published early in 2022, utilising stakeholder feedback provided through this consultation.

It is important to note that as a result of bringing forward our scope development process (consultation) by three months, the scope set out in this document is at a high level whilst work on this year's deliverables is ongoing. The PID will include further details on the scope, activities, dependencies, deliverables, and timelines.

Background

Launched in January 2017, ENA's Open Networks programme is laying the foundations of a smart, flexible energy system in UK. In recent years, the programme has introduced real momentum into the transition to Distribution System Operation and has set out a clear, least regrets, pathway with the necessary actions to deliver. With over 3GW of flexibility available for tender in Great Britain this year, the programme's work has helped the UK to establish world leading local flexibility markets.

Open Networks is playing a pivotal role in supporting the move towards Net Zero by enabling local flexibility markets and implementing the processes required to support them. Open Networks is working in collaboration with other ENA initiatives and working groups that are addressing key aspects of the transition such as digitalisation, uptake of Low Carbon Technologies, charging, resilience and cyber security. See Appendix B for further information on these initiatives and working groups.

The recent Ofgem and BEIS Smart Systems and Flexibility Plan recognises the role of Open Networks and our work to date; and has given us a clear mandate to deliver a common framework for flexibility by 2023. The Smart Systems Plan sets out a number of actions for the Open Networks Programme to deliver against and these have directly informed our priorities and scope, as set out in this document. See Appendix A for further information on how the Open Networks programme is progressing these actions.

Stakeholder engagement and collaboration with the wider industry have always been at the heart of the Open Networks programme and in 2022 we want to build on this. Open Networks is revising its governance to work more collaboratively with the industry to develop and implement flexibility proposals. We are setting up a Challenge Group to give stakeholders a greater voice in the programme with a focus on challenging and shaping our work. A call for participation is currently open and we are welcoming applications.

As we introduce the Challenge Group into our governance process this year, we remain committed to working with industry to deliver change at pace, drive convergence and standardisation in key areas, and to provide better visibility of data to build an energy system that leaves nobody behind. Open Networks will continue to maintain a transparent approach by making all the outputs from the programme available and retaining an implementation focus to deliver change.

Programme Objectives

Our vision is to ensure networks are at the forefront of the UK's transition to net zero, working proactively with the Government, Ofgem and industry to identify, drive and deliver the changes required for networks to become smart, flexible and Net Zero ready efficiently whilst maximising customer benefits.

The focus of Open Networks has been on informing and implementing key policy on Distribution System Operation. Our work has set out pathways for the transition to Distribution System Operation and these have provided a clear direction of travel in the short term towards a model of stronger co-ordination across transmission and distribution whilst recognising the potential for changes to future roles and responsibilities to deliver the key functions most effectively.

Given flexibility has a critical role to play in helping us deliver this transition effectively, it has been a key area of focus for Open Networks. The need to deliver a common framework for flexibility by 2023 means work on standardising and co-ordinating network approaches to flexibility will remain a high priority in 2022 with a focus on delivering tangible change in the near-term.

Enabling local flexibility markets that are accessible and efficient requires co-ordinated effort across a number of existing network functions, including planning, forecasting and connections. It is increasingly important that these functions are co-ordinated and optimised to support the needs of flexibility markets. Open Networks will continue to focus on improving these functions.

The overarching objectives for the Open Networks programme to help deliver the transition to Distribution System Operation, in line with Government and Ofgem policy are as follows:

a) As per the Ofgem and BEIS Smart Systems and Flexibility Plan, enable networks to deliver open, transparent, accessible, and efficient markets for local flexibility, in coordination with the ESO and accounting for impacts across transmission and distribution systems.
b) Improve and optimise existing network functions to achieve efficient coordination across transmission and distribution boundaries, including through coordination in planning, forecasting, network and flexibility operations, and data sharing.
c) Apply a whole system approach to work across gas and electricity networks to deliver greater coordination across existing functions and to work with the industry, Government and Ofgem to address key strategic industry challenges in the move to Net Zero.

These overarching objectives are delivered through six workstreams across the programme with each workstream having key areas of focus.

Resourcing

For 2022, we are proposing similar levels of resource from network companies to deliver this programme of work. That said, there is a finite pool of network subject matter experts in the industry and considering ongoing initiatives, we are limited in terms of how many resources we can deploy. Therefore, we are proposing a similar level of work to last year to ensure that we can appropriately resource and deliver this work. We will continue to deploy consultancy support where possible.

Workstream 1A – Flexibility Services

Introduction

Since the Flexibility workstream (WS1A) was first launched in 2019, we have made significant progress and contributed to the development of local flexibility markets in the UK that are world leading. Around 3GW of flexibility was tendered this year across all DNOs in Great Britain and over half of it was contracted by July, indicating a 45% improvement in uptake from the previous year.

WS1A is playing a key role in helping all DNOs to prioritise flexibility and deliver against their flexibility commitment. Open Networks has introduced standard approaches to the procurement of this flexibility. Key deliverables such as the Baselining tool and the updated version of the Standard Agreement (Version 2) has simplified participation for potential providers whilst providing more transparency in this process.

Whilst this reflects good progress, there is more to do in the coming years and as set out in the recent Smart Systems and Flexibility Plan, there is a clear expectation for the programme to deliver a step up in standardisation across local and national flexibility markets and to deliver a common framework for flexibility by 2023. Appendix A maps out all the actions from the Smart Systems Plan and how we are delivering them. Note that the majority of these actions sit within WS1A across the products that we have set out below.

Workstream Remit

The focus of this workstream is on facilitating the development of local flexibility markets through more standardisation (across DNOs and with the ESO), simplification, and transparency in decision-making.

This workstream will deliver a common framework for flexibility by 2023 and additionally, will consider and progress medium term developments (such as real time procurement, interoperability across platforms etc.) to bring future maturity to these markets in ED2 and beyond.

The following are the key objectives of this workstream for this year:

- As per action 3.2 of the Smart Systems Plan, deliver a standardised approach across distribution networks to procure flexibility by 2023, through commonly defined flexibility services, common approaches to valuing flexibility, baselining methodologies, pre-qualification, dispatch and settlement and monitoring requirements.

- As per action 3.3 of the Smart Systems Plan, deliver a common framework for flexibility by 2023 that delivers a step up in alignment and standardisation across distribution flexibility services and ESO balancing and ancillary services. This common framework should include contract terms, service requirements, frequency of procurement, procurement timetables and processes, as well as interfaces for the provision of flexibility services to the ESO or network operators.

- As per action 3.3 of the Smart Systems Plan, develop and implement a set of primacy rules to resolve service conflicts between ESO and DNO procured flexibility by 2023, in line with implementation plan set out in 2021.

- Enable greater participation of Active Network Management (ANM) enabled Flexible Connections through improved provision of curtailment information.

Note that Ofgem's work on the Access and Forward-Looking Charging SCR is ongoing and following the publication of key decisions on Access and DUoS, appropriate working groups will be formed to progress

BaU implementation as required. Therefore, we are not proposing to undertake further work on apportionment of curtailment risk (Caps and Collars approach) and on exit strategies for legacy ANM Flexible Connections.

In addition, in 2022 this workstream will also support:

- The proliferation of new market services (outside the direct procurement of services by DSOs) by extrapolating learning from innovation trials to help customers realise more value from flexibility and allow more effective use of network capacity.
- Key strategic initiatives and their outcomes, such as Ofgem's work on Full Chain Flexibility, Access and Forward-Looking Charges SCR and BEIS' work on the development of a framework for monitoring flexibility.

This workstream will continue to take a technology neutral approach and will not undertake development of technology specific processes to address issues for technologies such as EVs, heat pumps and storage as this work is undertaken within other forums at ENA and we will continue to engage with them as needed to ensure two-way sharing of work. See Appendix B for further information.

WS1A Scope for 2022

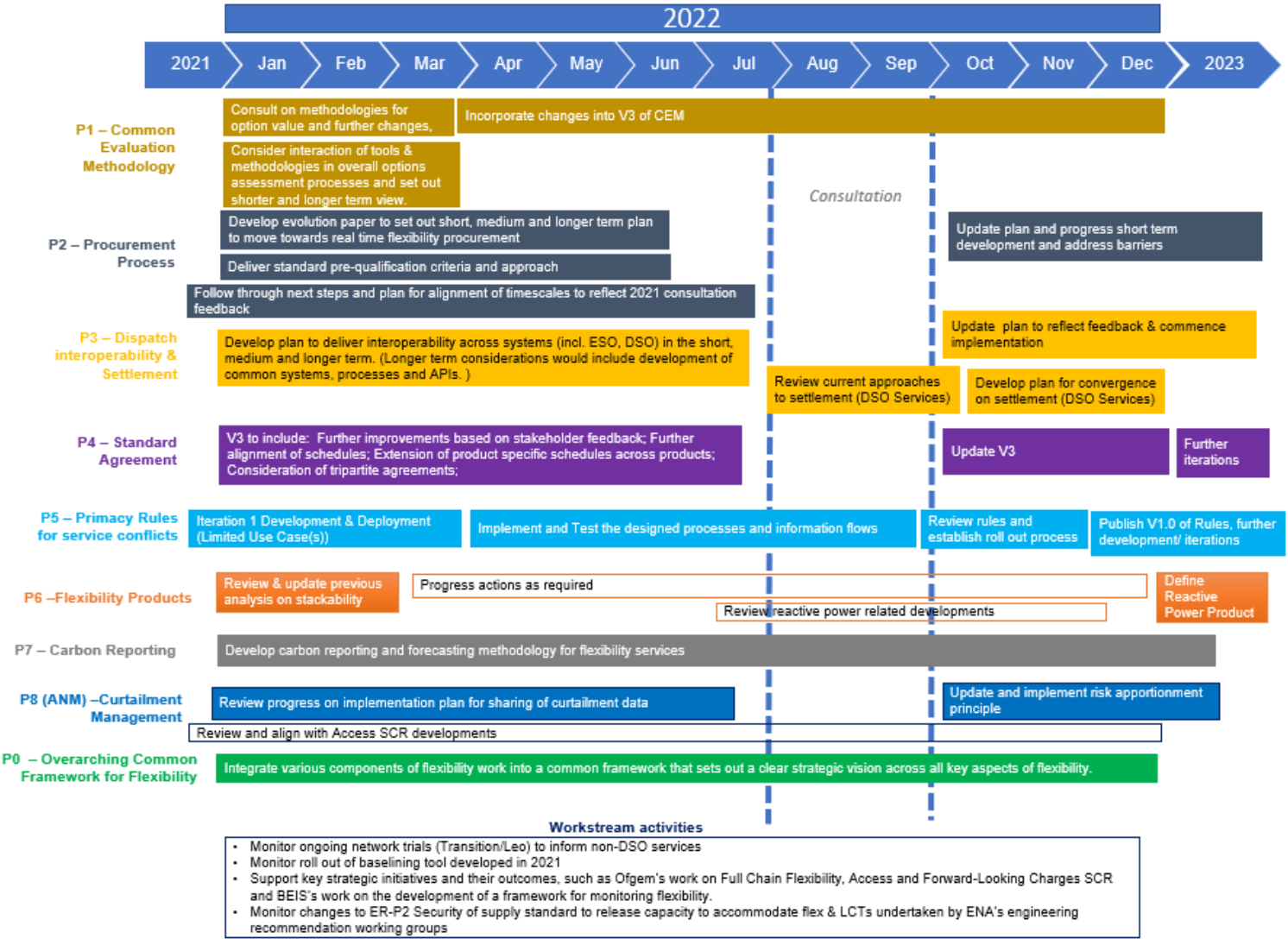
Similar to last year, we have started with a large body of potential areas of work for WS1A and have prioritised based on the keys asks of the Smart Systems and Flexibility Plan. We want to ensure we set out a realistic and deliverable work plan, with the resources that are available to us, and this document sets out our proposed view of this.

Summary of proposed WS1A products for 2022

Fully resourced Products	
P1	CEM Enhancements to the Common Evaluation Methodology (CEM) (and tool) used to evaluate flexibility and traditional intervention options.
P2	Procurement Process Alignment of Flexibility services procurement processes and timescales between DNO and ESO
P3	Dispatch interoperability & Settlement Review of interoperability of systems across DSO and ESO. Review approach to Settlement across DSO services.
P4	Standard Agreement Improvement to existing Standard agreement for procuring Flexibility services across DSO and ESO.
P5	Primacy Rules for service conflicts Defining 'Primacy Rules' for the ESO and the DNOs to manage service conflicts.
P6	Flexibility Products Review of existing and new Flexibility products.

P7	Carbon Reporting Support Ofgem's/BEIS' initiative to achieve common methodologies for carbon reporting and monitoring across DNOs.
P8	ANM Curtailment Information Improved provision and accessibility of curtailment information for ANM enabled Flexible Connections.
Light touch products (Not resource intensive)	
P0	Overarching common framework for flexibility services Integrate the various aspects of flexibility into a coherent framework. Additionally, set out a clear strategic view of further development required to mature processes across key aspects of flexibility (e.g. real time procurement, interoperability across platforms etc.). Expected to be led by ENA with support from product leads and/or appropriate representatives as required.
Activities workstream is accountable for (without a dedicated product team)	
	Baselining Tool (2021 WS1A P7) Monitor roll out of baselining tool developed in 2021
	Non-DSO services (2021 WS1A P6) Monitor ongoing network trials (Transition/Leo) to inform non-DSO services
	Supporting key strategic initiatives and their outcomes, such as Ofgem's work on Full Chain Flexibility, Access and Forward-Looking Charges SCR and BEIS's work on the development of a framework for monitoring flexibility.
	Monitor changes to ER-P2 Security of supply standard to release capacity to accommodate flexibility and LCTs undertaken by ENA's engineering recommendation working groups

Our proposed view of products and the associated activities for WS1A to be delivered in 2022 is set out below.


2022
2021
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2023
P1 – Common Evaluation Methodology
Consult on methodologies for option value and further changes,
Incorporate changes into V3 of CEM
Consider interaction of tools & methodologies in overall options assessment processes and set out shorter and longer term view.
Consultation
P2 – Procurement Process
Develop evolution paper to set out short, medium and longer term plan to move towards real time flexibility procurement
Update plan and progress short term development and address barriers
Deliver standard pre-qualification criteria and approach
Follow through next steps and plan for alignment of timescales to reflect 2021 consultation feedback
P3 – Dispatch interoperability & Settlement
Develop plan to deliver interoperability across systems (incl. ESO, DSO) in the short, medium and longer term. (Longer term considerations would include development of common systems, processes and APIs.)
Update plan to reflect feedback & commence implementation
Review current approaches to settlement (DSO Services)
Develop plan for convergence on settlement (DSO Services)
P4 – Standard Agreement
V3 to include: Further improvements based on stakeholder feedback; Further alignment of schedules; Extension of product specific schedules across products; Consideration of tripartite agreements;
Update V3
Further iterations
P5 – Primacy Rules for service conflicts
Iteration 1 Development & Deployment (Limited Use Case(s))
Implement and Test the designed processes and information flows
Review rules and establish roll out process
Publish V1.0 of Rules, further development/ iterations
P6 –Flexibility Products
Review & update previous analysis on stackability
Progress actions as required
Review reactive power related developments
Define Reactive Power Product
P7 – Carbon Reporting
Develop carbon reporting and forecasting methodology for flexibility services
P8 (ANM) –Curtailment Management
Review progress on implementation plan for sharing of curtailment data
Update and implement risk apportionment principle
Review and align with Access SCR developments
P0 – Overarching Common Framework for Flexibility
Integrate various components of flexibility work into a common framework that sets out a clear strategic vision across all key aspects of flexibility.
Workstream activities
Monitor ongoing network trials (Transition/Leo) to inform non-DSO services
Monitor roll out of baselining tool developed in 2021
Support key strategic initiatives and their outcomes, such as Ofgem's work on Full Chain Flexibility, Access and Forward-Looking Charges SCR and BEIS's work on the development of a framework for monitoring flexibility.
Monitor changes to ER-P2 Security of supply standard to release capacity to accommodate flex & LCTs undertaken by ENA's engineering recommendation working groups

WS1A Products Details

P1	Common Evaluation Methodology

Background

V1 of the Common Evaluation Methodology (CEM) and Tool developed in the Open Networks programme in 2020 went live on 1 April 2021 to be used by the DNOs to evaluate flex and traditional intervention options for an identified network need.

Stakeholder feedback from the Advisory Group and consultation responses suggested the V1 was a good start but didn't go far enough in option value and carbon impact assessment. The CEM was developed further in 2021, with external consultancy support, to incorporate carbon value (V2) and to identify methodologies for implementing option value. This product will engage with stakeholders through the remainder of 2021 to further refine these methodologies with a view to publicly consult on them in Q1 2022.

Proposed activity for 2022

In Q1 2022, this product will consult on the methodologies for incorporating option value into the CEM, the changes to carbon valuation included in CEM V2, and will invite views on further changes to include in the CEM.

The consultation feedback will be used to develop V3 of the CEM.

The product will also clarify the CEM interaction with various other tools and methodologies (including the WS4 Whole System CBA framework) and how these fit into the overall Network Options Assessment processes; with a view to identify alignment opportunities in the short term, medium and longer term.

Note: In 2020, this product clarified the use of the CEM tool for ANM (Active Network Management) enabled Flexible Connections. The current scope does not include any further work on this, however proposals for the inclusion of the wider costs of ANM for connection will be submitted for consideration by the new 2022 "Product 1: CEM and Tool" User Forum (described in the following section).

Key Deliverables

- Public consultation
- CEM tool Version 3.0

Benefits

- The update to the CEM and tool allows an end-to-end analysis of options that aid DNOs in determining the lowest system cost solution to releasing network capacity.
- Further improvements to the CEM methodology and tool, providing greater transparency in DNO decision making and the valuation of flexibility.

Public Consultation

Yes

P2	Procurement Processes

Background

Previously, this product has delivered alignment across DNOs on activities relating to procurement of flexibility services including: definition of common flexibility services, alignment across DNOs on procurement activities including how and when tenders are assessed by DNOs, and coordinated DNO - ESO (Electricity System Operator) procurement windows.

In 2021, the product focused on investigating the potential for further alignment of procurement timescales between the DNOs and the ESO (including consideration of the Capacity Market). Detailed reviews were undertaken to identify and assess the range of options, and the product concluded that it may not be of value to create concurrent DNO and ESO procurement timelines at this juncture. The product has consulted on both the options analysis and this conclusion, inviting industry views on how we can better facilitate participation in both DNO and ESO services. The product will assess the feedback and identify appropriate next steps to inform the 2022 activities.

Proposed activity for 2022

This product will implement the next steps on alignment of timescales to reflect the 2021 consultation feedback. The product will seek to progress short-term development and address barriers to help make local flexibility markets more accessible.

Additionally, this product will progress thinking on the move towards real time flexibility procurement. As part of this, the product will build on the 2021 WS1A P4 Evolution Report to develop further the technical, legal, and regulatory service requirements identified in the report as required for a common procurement framework across DSO and ESO.

In 2022, the product will also build on the preliminary work on pre-qualification processes undertaken in 2019 and will develop a standard pre-qualification criteria and approach including the convergence of pre-qualification timescales.

Key Deliverables

- A clear short, medium and longer-term action plan to progress the move towards real time flexibility procurement.
- Standard pre-qualification criteria and approach including the convergence of pre-qualification timescales.

Benefits

- Simplify stakeholder participation in multiple markets by delivering consistency in procurement frequency, timing, and processes between the DNOs and the ESO.
- A shift to closer to real time procurement to enable better utilisation of the flexibility markets, especially as the market liquidity improves.
- Development of standard pre-qualification criteria for use across platforms and prequalification processes across DNOs.

Public Consultation

Yes

P3	Dispatch Interoperability and Settlement

Background

This product will build on the 2019 WS1A Product 3 Dispatch and Settlement activity. Previously, this work concluded, that due to the DNOs having varying levels of experience operating flexibility services and settlement processes, this activity should be recommenced at a later date when more knowledge and experience of these activities are available.

In light of the Smart Systems and Flexibility Plan, we will convene this product in 2022 to specifically look at standardisation of dispatch and settlement processes. With regards to dispatch of services, this product will consider interoperability across the various systems (DNO, ESO and third-party platforms).

Proposed activity for 2022

This product will commence with an exercise to set out the landscape of expectations for dispatch and settlement to be covered. This will include mapping out of interactions between different systems to identify areas for convergence.

The product will revisit the 2019 work and identify an action plan to deliver interoperability across systems (incl. ESO, DSO and third-party platforms) in the short, medium, and longer-term. Considerations may include the development of common systems, processes, standards and APIs.

The product will also develop a similar plan for settlement, to map out short, medium and long-term actions. This product will take relevant learnings from innovation trials and set out a plan towards standardisation.

Although work on dispatch and settlement require resources with different skill set the two topics are included in one product since the learning from the interoperability/dispatch exercise could feed into the convergence DNO settlement processes. The product team will be resourced to ensure key experts are available for the relevant task.

Key Deliverables

- A plan to deliver dispatch interoperability across systems and commence implementation of actions as per plan
- A plan for convergence of settlement processes

Benefits

- Standardised approach to dispatch and settlement will simplify participation for flexibility providers and reduce costs for networks and FSPs due to reduced administrative overhead.
- Delivers a key component of the common framework for flexibility. Dispatch and settlement are a step in the flexibility lifecycle and included in the work plan for 2022.

Public Consultation

Yes

P4	Standard Agreement- Alignment of Contract for DNO/ESO services

Background

This product set out a view on the evolution of a standard agreement and the move towards a framework approach. The Standard Agreement was first implemented in April 2020 by all DNOs and further iterations have delivered additional improvements.

In March 2021, the product delivered Version 1.2 to address stakeholder feedback on liability, indemnity, and insurance (L, I, & I) elements of the Agreement. Version 2.0 of the Agreement was subsequently released for consultation in August 2021and is the first version to be utilised by both the DNOs and the ESO. This version brought the Agreement another step closer to a framework approach and further simplification. The product will use the consultation responses to identify and deliver further improvements.

Proposed activity for 2022

The product will provide further iterations and improvements to the Agreement, to reflect the feedback from the 2021 consultation, and deliver Version 3. This will include further alignment of schedules and, working closely with ongoing development in the Regional Development Programmes (RDP), it may also consider the need for tripartite agreements. The product will also seek to expand the product specific schedules across other ESO-DSO products.

This product will collaborate with WS1A P2 to help develop some of the technical, legal, and regulatory areas identified in the 2021 WS1A P4 Evolution Report.

Key Deliverables

- Version 3 of the standard agreement

Benefits

- Facilitates further alignment opportunities for DNO-ESO services and helps us to deliver further convergence across DNO and ESO markets, making participation simpler for flexibility providers.

Public Consultation

Yes

P5	Primacy Rules for Service Conflicts

Background

Network co-ordination and co-optimisation issues can arise when both the DNO and the ESO are seeking to procure flexibility from the same Flexibility Service Provider (FSP) and/or managing issues in the same parts of the network or, in some cases, where localised actions may affect the ability to balance the overall system on a national basis. There is a need for both the DNOs and the ESO to have a set of clear principles and primacy rules for addressing flexibility service conflicts between the transmission and distribution networks for a range of scenarios.

It is likely that a series of Primacy Rule releases will be required as the system needs, products and services, evolve over time. In 2021, the product will identify and agree a range of likely scenarios; prioritised by value to networks and FSPs, and the likely needs timeframe and deliverability. The product will establish a Primacy

focus group consisting of users with relevant experience and / or currently navigating both DNO and ESO service provision, to review and challenge the use cases/scenarios, their value and timings.

Proposed activity for 2022

This product is a continuation of 2021 product with the detailed plan here. In 2022, the product scope covers the delivery, testing, and initial implementation of the first version of Primacy Rules for flexibility providers, networks, stakeholders, market platform designers etc. for the limited use cases identified for the first iteration. Trials are typically funded and led by industry and the product will need to comply with the relevant processes. Open Networks will provide a scope/design document and will continue to monitor, provide input and take learnings from the trials.

The product will employ an iterative approach with a push for delivering tangible outputs, consolidating over future iterations in the following year. The product will continue ongoing engagement with the focus group throughout this process. Subsequent physical implementation of a full suite of Primacy Rules at scale in the network planning and operational processes is likely to be a major undertaking in early ED2 (subject to funding) and excluded here.

Key deliverables

- Develop, test, and begin to implement the highest priority primacy rules ready for the start of ED2.
- Roadmap for further development of primacy rules (Iteration 2)

Benefits

- These primacy rules will look to balance: the local networks' technical requirements; the risks to the overall operability of the whole system; the value for Flexibility Service Providers (FSPs) through the facilitation of market/price driven actions; the needs of emerging market-based platform developers; and ultimately the end consumer.

Public Consultation

Yes

P6	Flexibility Products

Background

This product will take ownership of flexibility products (developed in previous years) in 2022 to review, update and create new products as required based on latest market developments and stakeholder feedback (including through the SLC31E consultation process). This product will also review stackability of products (building on 2019 WS1A P5 Co-ordination and co-optimisation of services) and progress actions to remove barriers to it.

Proposed activity for 2022

The product will review & update previous analysis on stackability taking into account stakeholder inputs. This will include the development of a flexibility product summary that will consolidate a list of all flexibility products (across DSO and ESO market) and their existing technical characteristics. The product team will engage and collaborate with ongoing work in 2022 WS1A P5 Primacy Rules which will generate a similar list albeit specific to the primacy work. This work will enable an analysis of opportunities for stacking of services that offers a

stakeholder a clear view of the flexibility product portfolio across DSO and ESO and will help to address any barriers to it.

The product will review how flexibility services have been used to date and develop recommendations if updates required. Stakeholders will be consulted on the recommendations identified. The product will also review developments in the area of reactive power flexibility product (e.g. Power Potential and the SPEN Reactive tender) and consider scoping the definition of technical specification for DSO Reactive Power services in 2023.

Key Deliverables

- Consolidate a list of all flexibility products (across DSO and ESO market) and their existing technical characteristics
- Recommendation for the updating product specifications (if needed)

Benefits

- This product will enable greater opportunities for stacking and increased FSP revenues which will drive more investment into flexibility services and help to bring more liquidity into flexibility markets.

Public Consultation

Yes

P7	Carbon Reporting

Background

This is a new area of work for Open Networks and has been introduced based on action 3.6 in the Smart Systems and Flexibility Plan that requires networks to develop common methodologies for carbon reporting and monitoring of flexibility markets by 2023.

Proposed activity for 2022

This product will start by reviewing the ESO's carbon intensity reporting under the RIIO-2 framework with a view to using this as a starting point. This product will also review innovation projects and other examples of work in this area, including internationally to inform and shape this work.

This product will develop a consistent methodology to provide transparency on the carbon intensity of local flexibility markets by 2023. In addition, this product will also explore options for forecast and actual carbon reporting. The product shall also monitor the evolution of the CEM tool, specifically the inclusion of carbon value and transfer appropriate learning to this product.

It is expected that the outcomes of the product will feed into Ofgem's work on developing the reporting requirements for all DNOs under Standard Licence Condition 31E for subsequent years (2023 and onwards).

Further scoping of this product is required to detail the activities and deliverables.

Key Deliverables

- Developing a standardised methodology across DNOs and ESO to provide transparency on the carbon intensity of DNO/ESO actions and their markets by 2023

Public Consultation

Yes

P8	ANM enabled Flexible Connection Curtailment Risk Management

Background

Active Network Management (ANM) enabled Flexible Connections are provided with information on the prospective long term curtailment risk associated with their site, however this is linked to DNO load forecasting. ANM systems automatically curtail access based on observed load and the risk carried by asset owners with ANM enabled Flexible Connections is potentially unlimited and outside their ability to control. The DNO is best placed to assess and forecast the curtailment risk, but is not currently funded to take on the management of the risk; this may change as a result of Ofgem's Access and FLC SCR. A final decision is anticipated in Dec 2021.

In 2021, a product (2021 WS1A P9 ANM Curtailment Information) explored the availability of curtailment information in order to enhance opportunities in flexible services and revenue stacking for assets with Flexible Connections (ANM) and create additional services for Flexibility Service Providers (FSP) who can replace the curtailment needs with flexibility products. It has worked with stakeholders and DNOs to prioritise information needs and an implementation plan, for improving the provision of curtailment information in 2022, is due to be published in November of 2021 through WS1A P9 (2021).

Ofgem's minded-to position on the Access and Forward-Looking Charges SCR suggested changing the distribution connection boundary to a shallow boundary for demand and a shallower connection boundary for generation. This may have a material impact on how ANM enabled Flexible Connections, are used going forward, possibly resulting in a large increase in the demand for temporary Flexible Connections (ANM) whilst connections wait for capacity released by flexibility tenders or network reinforcement.

A high-level principle for the apportionment of curtailment risk with curtailment caps was proposed by 2021 WS1A P8-Apportioning Curtailment Risk. Due to significant overlaps in the remit of the 2021 WS1A P8 and the work being undertaken by the ENA and Ofgem SCR implementation working group(s), key findings/recommendation from this product was transitioned to these group(s) to prevent duplication.

Proposed activity for 2022

This product will follow through on the steps identified in the implementation plan for improving the provision of curtailment information that is due to be published in November of 2021 through WS1A P9 (2021).

The product will also continue offer technical support to the SCR implementation working group(s) as necessary, to support development of the curtailment caps approach for facilitating customer connection choices.

Key deliverables

- Availability of additional curtailment information at the pre-application stage; at point of connection and to support post connection operation. Details to be provided by the WS1A P9 plan in Nov 2021.

Benefits

- Provision of curtailment information to customers with ANM connected Flexible Connections to provide more certainty and transparency.

- Provision of curtailment information to enable customers with flexible connections to better manage risks and improve market participation through improved forecasting ability.

Public Consultation

Yes

P0	Overarching Common Framework for Flexibility

Background

This is a new overarching product that is being introduced to integrate the various components of flexibility work (covered across multiple products) into a common framework for flexibility. Additionally, this product will set out a clear strategic view of further development required to mature processes across key aspects of flexibility (e.g. real time procurement, interoperability across platforms etc.).

Previously, WS1A products have delivered standardisation across a number of areas within the overall flexibility procurement cycle. Given the scale of work required across each of these areas and their technical nature, these have been split into discrete products. Introducing this overarching product will help to coordinate and consolidate the outcomes across these different product areas whilst setting out a clear longer-term view of development across various aspects of flexibility.

This product is not expected to be resource intensive and will be formed from product leads and/or appropriate representatives, led by an ENA technical lead.

Key Deliverables

The product team will agree on the best format for consolidating the work into a common framework for flexibility by H1 2021 and will set out an appropriate format for mapping out further development required to mature these processes. This framework will be kept live through the year to capture new developments as they emerge.

Public Consultation

Yes

User Forums

Open Networks introduced the User Forum concept for WS1A in 2021 and will maintain this as an option for the key products identified below:

- P1 Common Evaluation Methodology
- P4 Standard Agreement
- P5 Primacy Rules
- P8 ANM Curtailment Management

In Q1 2022, Open Networks will launch an expression of interest process to join these User Forums. If interest is limited, Open Networks will continue delivery through the product teams and utilise existing forums (Challenge Group, Dissemination Forums, Focus Groups, workshops with targeted audiences, consultations etc.) to access stakeholder input.

Workstream 1B – Whole Electricity System Planning & T-D Data Exchange

Introduction

Coordination across the Electricity Transmission and Distribution interface is a key aspect of Distribution System Operation. Since 2017, WS1B has enhanced T-D (Transmission-Distribution) coordination and implemented change across areas including investment planning through Network Options Assessment (NOA), Network Development Plan (NDP) and Future Energy Scenarios (FES) as well as operational planning through enhanced and more coordinated approaches for data exchange between T and D. In addition to these processes the product has supported work in the development of standard approaches to new licence conditions including an end-to-end NDP process and a whole electricity system coordination register.

Workstream Remit

Workstream 1B (WS1B) is focused on improving interactions and co-ordination between electricity transmission and distribution taking a whole electricity system approach.

The objective of this workstream for 2022 are:

- Optimise existing planning and forecasting processes across the Transmission and Distribution boundary, through streamlining of Future Energy Scenarios (FES) and Distribution Future Energy Scenarios (DFES) by identifying synergies and reviewing key assumptions in their building blocks.
- Develop and implement approaches to improve the quality and the consistency of data sharing in operational and planning timescales between DNOs, TOs and ESO (and non-network market participants).

In addition, this workstream also supports

- Network companies to comply with new licence obligations that are identified to be implemented through the Open Networks, ensuring consistency on how network companies produce and publish associated reports.

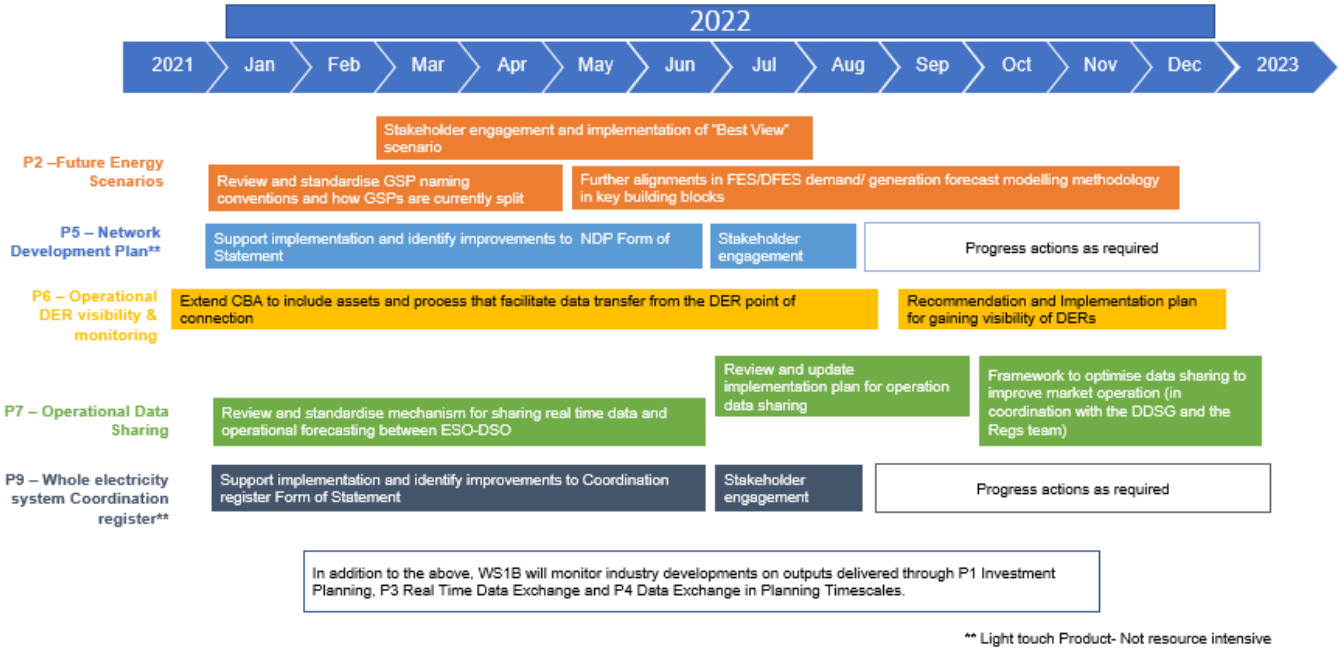
WS1B Scope for 2022

Summary of proposed WS1B products for 2022

Fully resourced Products	
P2	Future Energy Scenarios Further alignment between Future Energy Scenarios (FES) and Distribution Future Energy Scenarios (DFES)
P6	Operational DER visibility & monitoring Recommendation and implementation plan for gaining visibility of DER
P7	Operational data sharing Mechanism of sharing real-time, operational and forecasting data between ESO and DSO
Light touch products (Not resource intensive)	

P5	Network development plan Review and update to Network Development Plan-Form of Statement
P9	Whole electricity system Coordination register Review and update to Whole Electricity System Coordination Register- Form of Statement
Activities workstream is accountable for (without a dedicated product team)	
	Investment planning (2020 WS1B P1) Monitor industry developments on outputs delivered in the past
	Real Time Data Exchange (2020 WS1B P3) Monitor industry developments on outputs delivered in the past
	Data Exchange in Planning Timescales (2020 WS1B P4) Monitor industry developments on outputs delivered in the past
	Monitoring industry developments on outputs delivered through relevant products from past years; specifically-Investment Planning, Real Time Data Exchange and Data Exchange in Planning Timescales and relevant code modifications.
	Working in collaboration with other ENA working groups (such as Data and Digitalisation Steering Group (DDSG), Engineering recommendation, EV/LCT working groups etc), ensuring value delivered together is greater than the sum of its parts.

The details of the products and the associated activities proposed for WS1B in 2022 is set out below. The actions identified for the Open Networks in the Smart System and Flexibility plan is mapped to existing and future workstream products in Appendix 1



WS1B Products Details

P2	Further alignment between FES and DFES

Background

Previously, this product has delivered alignment across the various industry Future Energy Scenario (FES) activities including more regional input into the GB FES and more standardisation across DFES publications by DNOs. During 2020 and 2021, this product delivered a common methodology to deliver a "Best View" scenario to support the production of a Network Development Plans (NDP). This "Best View" scenario is aligned to the DFES scenarios and is suitable for LTDS week 24/42 submissions as well as the NDP process. DNO specific implementation plans for the "Best View" scenario will be completed in 2021.

Proposed activity for 2022

This product will continue to deliver the coordination activities required to align FES and DFES activities and undertake stakeholder engagement to support and implement the "Best View" scenario developed in 2021.

This product will also develop the modelling methodology and assumptions to be used by each network company to forecast peak day demand/generation profiles and annual energy consumptions. This will include allocating specific profiles to each key building block (e.g., EV or HPs) for defining the baseline peak demand. The methodology and assumptions used will be important for shaping the demand/generation forecast and consequently in identifying network reinforcement. A reasonable level of standardisation and consistency among network companies will be required.

This product will consider whether modelling areas can be coordinated to provide additional levels of consistency by:

1. Modifying the Building block to include energy consumptions for Low Carbon Technologies (LCTs)
2. Consistency in daily/yearly profiles used for LCTs
3. Consistency in assumptions used to derive the LCTs profiles

Furthermore, the product will explore standardisation of the list of GSPs and their regions with the DNOs; naming conventions and how GSPs are currently split will be considered.

In Q4 2021, the product will produce a stakeholder engagement plan for Q1 2022; taking into consideration other planned/ongoing stakeholder engagement including FES, DFES, LTDS and NDP. Stakeholder feedback will also be reflected in the publication of the NDP (WS1B P5).

Key Deliverables

- Implementation of "Best View" scenario within each DNO licence area.
- Revision to the "Best View" scenario based on stakeholder input
- Recommendation to further align modelling methodology and assumptions to be used by each network company to forecast peak day demand/generation profiles and annual energy consumptions
- Standardisation of naming conventions and how GSPs are currently split across DNOs.

Benefits

- Further whole system coordination in FES/DFES demand/ generation forecast modelling methodologies and additional consistency in the tools which will further improve the demand/generation forecast and consequently in identifying network reinforcement.
- Standardisation of naming conventions and how GSPs are currently split will further align the inputs for the FES process across DNOs.

Public Consultation

No

P5	Network Development Plans

Background

In 2019 a new licence condition was introduced requiring DNOs to publish Network Development Plans, in accordance with the Clean Energy Package, on an annual basis. P5 continues to seek improvements in network capacity reporting for signposting areas most suited to new connections and where there are network issues potentially benefiting from flexible services. It aligns with the workstream's objective of optimising whole electricity system approaches. Following stakeholder engagement in Q3/4 2021, a finalised Form of Statement (FoS) for the NDP reports will be published.

Proposed activity for 2022

The work in 2022 will continue to build on past year's work, improving the FoS in response to both stakeholder feedback and the DNOs' experience using the FoS.

In line with WS1B's objective to optimise existing processes across the Transmission and Distribution boundary, Product will continue to scrutinise how the NDP content co-ordinates with transmission network capacity reporting so that the NDP provides optimal stakeholder utility. Product will work with the TOs and the ESO to identify and support any opportunities for coordination with transmission reporting. Ofgem have indicated that the NDP should be developed in the spirit of the original drafting of the licence condition for the NDP aspects of the implementation of the Clean Energy Package. Therefore, WS1B P5's work will interface with WS1B P2's definition of best view scenario

DNOs have a regulatory requirement to engage stakeholders in the NDPs and a number of other formal and informal engagement processes. Product will work with other WS1B products to harmonise, where possible, the various engagement opportunities. The product team will collaborate with Ofgem to ensure alignment with the progress of the LTDS review.

Key Deliverables

- Implementation of "Best View" scenario within each DNO licence area
- Revised NDP Form of Statement based on user experience and stakeholder inputs

Public Consultation:

No

P6	Operational DER visibility & monitoring

Background

In August 2020, Ofgem published a call for evidence on Distributed Energy Resource (DER) visibility, clearly signalling their intention to establish a clear policy on DG monitoring requirements. In 2021, this product identified a range of use cases for DER visibility and monitoring and defined functional specifications for this. A cost-benefit analysis (CBA) will be undertaken in 2021 to establish the needs case for DER visibility and this will inform Ofgem's policy on DG monitoring requirements.

The 2021 scope has been limited to DER data at the point of connection (PoC). In 2022, the scope will be increased significantly to include DER data relevant to the point of connection.

Proposed activity for 2022

Building on the 2021 work, this product will extend the CBA to include DER data relevant to the point of connection. This refers to all other data, relevant to the DER PoC, that is not necessarily measured at the PoC. These incudes forecasted generation profiles, market data including volumes and activation windows, and static data DER data. This data could be obtained from a number of different sources such as online databases, third party platforms, aggregators, Balancing Mechanism (BM) systems, online portals, user submitted code-related data etc.

The product team will develop a recommendation and implementation plan for the delivering visibility of DERs, signposting the trade-offs, challenges and benefits. This will support the delivery of action 3.3 in the Smart Systems and Flexibility Plan that requires shared processes for monitoring DER.

Key Deliverables

- An expanded CBA to evaluate the DER visibility requirement in operational timescales for whole system network operation and resilience, focusing on operational monitoring requirements of DG and DER.
- The recommendation and implementation plan will span across use cases capturing all prospective DER-DNO/ESO interactions (service or activity) that will make use of data applicable to the PoC of DG and DER connected to the network.

Benefits

- Standardisation of DER monitoring requirements will improve the visibility of assets on the network as well as help futureproof the networks against system blackout similar to the event in Aug 2019.
- The CBA will inform regulator of the optimum level of monitoring that has a positive business case for the DER owners and well as the network visibility and operation whilst ensuring the best value outcomes can be delivered for customers.

Public Consultation

No

P7	Operational Data Sharing

Background

In 2021 WS1B P7 performed a gap analysis (RAG Analysis) to identified operational data and information that the network companies can share with non-network market participants with minimum standards for doing so. Network topology data, network configuration data, outage data, constraint forecasting data, and historical data sets were all considered, along with a comparison of operational data that international GB companies share with their stakeholders.

A proposal for implementation of the data sharing identified (i.e. 'Green' in the RAG analysis) including mechanisms is due to be completed in Q4 2021.

Proposed activity for 2022

In 2022, this product will review and standardise mechanisms for sharing real time data and operational forecasting between ESO - DSO. The product will also review which of these data sets can be shared with non-network market participants for inclusion into their scope.

This product will continue to liaise with ENA's Data and Digitalisation Steering Group (DDSG) to consider the National Energy System Map (being developed as part of the EDTF recommendations, with a proof of concept being launched in October 2021) as a potential sharing mechanism identified in the framework document (Data Triage Playbook). The product will continue to monitor the development of Common Information Model (CIM) and review its applicability for operational data sharing between DSO-ESO in the short term and/or longer term.

If data sets are not in a standard data definition across all companies, there will also be a need undertake further work to commonly define these data sets.

Following on from the 2021 gap analysis and implementation plan for data sharing between DSO – external non network parties, in 2022, the product will continue implementation as per the plan and explore inclusion additional data sets to share, that were in 'Amber' and not included in the 2021 implementation.

Key Deliverables

- Short- and longer-term recommendations to standardise mechanisms for sharing real time data and operational forecasting between ESO - DSO to improve process efficiencies and collaboration with ENA's Data and Digitalisation Steering Group to support the development of an appropriate implementation plan.
- Continued implementation as per the 2021 plan to make data available (i.e. 'Green' in the RAG analysis) to improve non-network stakeholders.
- Review and update the 2021 implementation plan for operational data sharing with non-network market participants incorporating additional data that was not included in the 2021 plan (i.e. 'Amber' in the RAG analysis).

Benefits

The work will improve the decision making of market participants, improve the trust that market participants have in network companies and contribute to national data sharing targets.

Public Consultation

No

P9	Whole electricity system co-ordination register

Background

In 2021 a coordination register was developed in response to the 2021 Standard License Conditions D17 (distribution) and 7A (transmission). The purpose of the Coordination Register is for the Electricity Distributors and Transmission Owners to clearly and transparently demonstrate the process each has undertaken to coordinate and cooperate with other electricity network licensees, and to consider proposals from systems users which seek to advance the efficient and economical operation of the networks.

The Coordination Register will be evidence based and detail active and completed actions, rather than forthcoming actions that look to improve whole electricity system collaboration between electricity transmission owners, transmission licensees, and electricity distributors.

Proposed activity for 2022

In 2022, the product team will develop the coordination register Form of Statement produced by 2021 WS1B P9 to build on user feedback captured in the product webinar, in Q3 following the publication the register.

Key Deliverables

- Implementation of Coordination register within each DNO/ TO licence area
- Revised Form of Statement based on user experience and stakeholder inputs

Benefits

- Enable electricity network licensees and users to demonstrate co-ordination and understand what opportunities have been identified and learn from them, advancing the industry's understanding of the possibilities across a broad range of scenarios.

Public Consultation

No

Workstream 2 – Customer Information Provision & Connections

Introduction

Workstream 2 (WS2) is a customer focused workstream that is concentrated on visibility of data and process improvements through the application, connection and operations processes. WS2 will work closely with ENA's Data and Digitalisation Steering Group (DDSG) in 2022 to turn the Embedded Capacity Register delivered in previous years into an end-to-end database solution.

WS2 will continue to deliver improvements to the customer connections process, making it easier and more efficient for customers to connect to the network through monitoring the implementation of Queue Management and Interactivity proposals. This workstream will monitor developments in Ofgem's Access and Forward-Looking Charges SCR and support actions as needed.

Workstream Remit

Workstream 2 (WS2) is a customer focused group, concentrated on visibility of data and process improvements through the application, connection and operations processes.

The key objectives for this workstream for 2022 are:

- Enhance information provision to customers, to aid them through the connections and contracting processes and facilitate the realisation of value for their connected technology.
- Communicate whole electricity system needs and facilitate the translation of this into value for asset developers and owners as well as 3rd parties, outside direct DSO contracted services (as highlighted in the Flexibility Workstream).

In addition, this workstream also supports

- Relevant code modification process that follows on from some of the key deliverables of the products in the workstream, such that they are implemented across network companies.

WS2 Scope for 2022

We will continue to build on the outcomes that we have delivered in 2021, including the System Wide Resource Register which has now been codified to become the Embedded Capacity Register and on our Queue Management and Interactivity Processes.

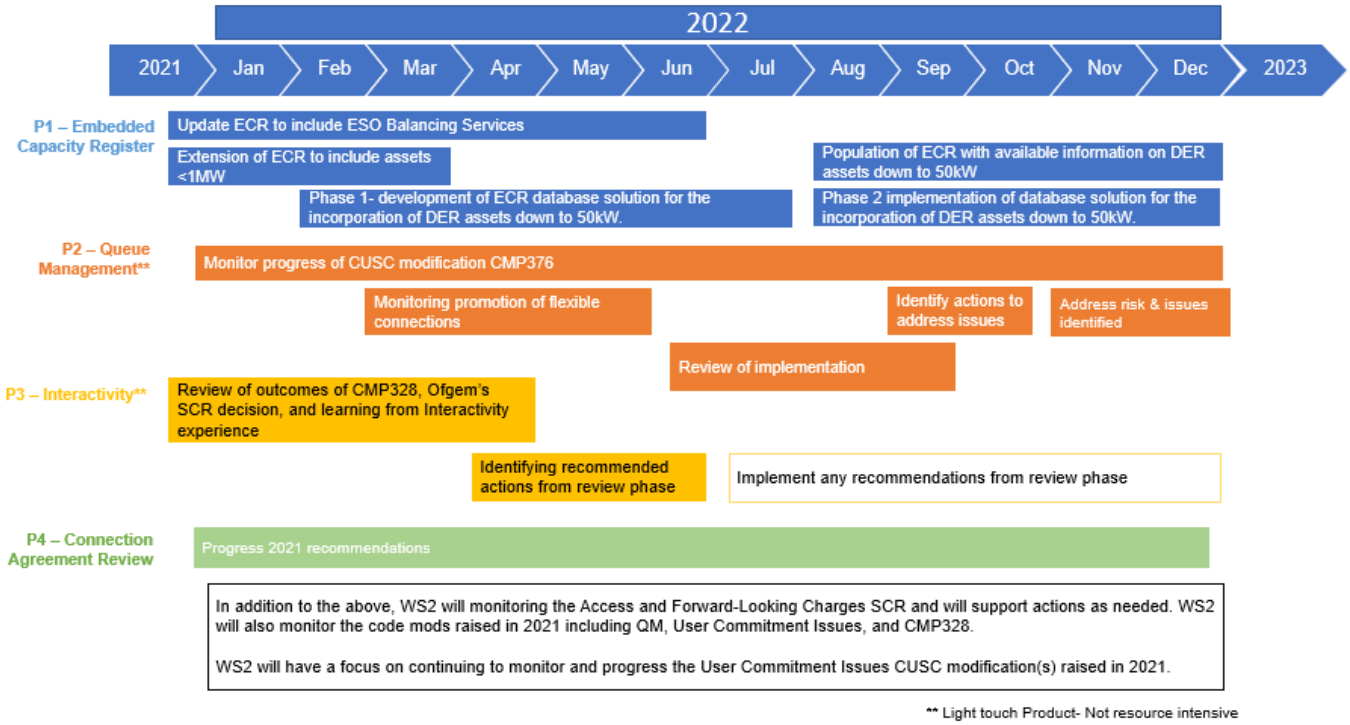
WS2 will work closely with ENA's Data and Digitalisation Steering Group (DDSG) to turn the Embedded Capacity Register delivered in previous years into an end-to-end database solution in 2022.

WS2 will continue to deliver improvements to the customer connections process, making it easier and more efficient for customers to connect to the network through monitoring the implementation of Queue Management and Interactivity proposals. This workstream will monitor developments in Ofgem's Access and Forward-Looking Charges SCR and will support actions as needed.

The best view of products and the associated activities proposed for WS2 in 2022 is set out below.

Summary of proposed WS2 products for 2022

Fully resourced Products	
P1	ECR Further developments and digitalisation of the Embedded Capacity Register (working in collaboration with DDSG, with co-leads from both the product team and the DDSG)
P4	Connection Agreement Review Progress recommendation on the Connection Agreement Review
Light touch products (Not resource intensive)	
P2	Queue Management Follow up on the code modification process for the Queue management
P3	Interactivity Review code modification and Ofgem's Access and Forward-Looking Charges SCR minded to decision relevant to Interactivity
Activities workstream is accountable for (without a dedicated product team)	
	WS2 will continue to monitor and progress the User Commitment Issues CUSC modification(s) raised in 2021.



WS2 Product Details

P1	Embedded Capacity Register

Background

As per the commitment made in 2019, this product developed and implemented the Embedded Capacity Register (ECR) (previously referred to as the System Wide Resource Register) to include data on all network resources >1MW and information on the flexibility services bring provided by these resources. The implementation of the ECR was completed in July 2020 via DCP350 that codified the identified requirements. From July 2020, this product continued to explore further improvements to this register, primarily the inclusion of resources <1MW.

In 2021 the ECR template was enhanced to align technologies with the EREC G99, simplifying and standardising the language and units to align with industry norms, along with several more general modifications. This improved V3.0 of the ECR is due to be released in October 2021 following Ofgem's approval of G99.

An implementation plan is being developed collaboratively by the product team and ENA Data and Digitalisation Steering Group to allow for the inclusion of DER down to 50kW in 2022, along with the inclusion of ESO Balancing Services information during Q2 2022.

Proposed activity for 2022

This product will continue its ongoing review of the database solution options being developed by the product team and the ENA Data and Digitalisation Steering Group with a view to developing a phased implementation plan for the delivery of an end-to-end database solution.

The product will work closely with the Data and Digitalisation Steering Group to align the proposed solution with discussions on the digitalisation of the connections process and any subsequent work to ensure it delivers an end-to-end solution.

The product team will have a continued role to identify and address data gaps in the ECR and additionally will review how DNOs are licencing the ECR data

This is likely to be a significant undertaking for the DNOs both in terms or resource and expenditure. Key checkpoints will be identified within the implementation plan throughout 2022. These go/no-go checkpoints will allow for considered evaluation before the product team embarks on a subsequent phase of the implementation plan.

Inclusion of DER down to 50kW is a large-scale change and is likely to require an extensive redesign of the ECR due to the large increase in the volume of entries. The database solution will be selected such that it can accommodate the existing entries in the register as well as minimise/eliminate manual updates on future assets. Open Networks is likely to procure external support to help with the development of the selected database option, and migration of data from the existing excel based ECRs. A review of the existing ECR will be conducted to identify and remedy any data gaps and/or misalignments in the ECRs prior to migration.

Key Deliverables

- Updated version of ECR including ESO balancing services
- Recommendation for the database solution for incorporating DER assets down to 50kW

- Phased implementation plan for digitalisation of ECR, with go-no go check points

Benefits

- Expansion of the ECR to include assets down to 50kW, making more data available to customers.
- The ECR provides the industry with a database of more accurate and complete information that can benefit multiple parties including networks, asset developers, and aggregators.

Public Consultation

No

P2	Queue Management

Background

Queue Management is the process by which network companies manage contracted connections against limited capacity. To date, this has largely relied on a 'first to contract, first to connect' principles. Through Open Networks we developed milestones and revised processes in the connections process through significant consultation with industry to look at how the connections process can be improved. In 2020, we concluded the final consultation on these milestones and processes and clarified how flexible resources can be promoted in the queue. In 2021 we built on this work and following extensive stakeholder engagement, implemented QM across all DNOs on 1st July 2021. The product team will be monitoring this implementation as the impact of the new QM process is unlikely to be seen until the end of Q2 2022 due to the timescales associated with the connections progress.

Proposed activity for 2022

This product will continue to monitor the implementation of the Queue Management (QM) process and the progress of the QM CUSC modification raised in July 2021 (CMP376). In 2022 the product team will carry out a review of the QM process to ensure stakeholder issues are being addressed, as per the Open Networks issues register.
This product will monitor how networks are promoting flexible connections in the queue, share lessons learnt and opportunities for standardising the approach networks take to develop good practice and customer guidance.

Benefits

This product will continue to simplify the connections process and will allow for the best use of available capacity, which will lead to lower cost of the low carbon transition.

Public Consultation

No

P3	Interactivity

Background

Interactivity is the process to manage instances in the connections process where two or more applicants make use of the same part of the network but not all applicants can be connected due to capacity or constraints. This work builds on previous work from WS2 P3. In 2020, we set out processes for conditional interactivity, T-D and D-D interactivity for Transmission-led constraints. A decision was made to put the work on hold for Distribution-led constraints as CMP328 was underway and the outcome was likely to impact interactivity processes. This product will now review the decision from CMP328 and update interactivity processes accordingly for Distribution-led constraints.

Proposed activity for 2022

This product rolls over some activity from 2021 WS2 P3 due to delays in the completion of CMP328 in 2021. Following the implementation of improvements to the Interactivity process in the previous years, in 2022, this product will review the outcomes of CMP328, Ofgem's SCR decision (due December 2021), and learnings from Interactivity experience to produce recommendations for updates and improvement to the Interactivity process and User Guide. These recommendations will be implemented in H2 2022 to embed them into the interactivity processes developed in 2020 and the associated User Guide.

Benefits

This product will align and improve processes, to provide more consistency and harmonisation across network companies, and update the Interactivity User Guide to reflect changes in regulation such that customer experience is improved.

Public Consultation

No

P4	Connection agreement review

Background

In 2021 this product reviewed existing DNO connection agreements (offer and agreement post-energisation) in light of more recent smart grid developments such as LFDD, ANM connections, Flexibility services, relevant code changes (Grid Code such as GC019, Clean Energy Package and the associated licence changes, D code changes etc.) to ensure that they are fit for purpose for the customers (generators and storage) as well as the network companies. In particular, this product is considering the rights and obligations of all parties, in relation to curtailment of exports for standard generation connections and will produce an implementation plan in November 2021 to be followed by a go/no go decision for further work.

Proposed activity for 2022

This product will deliver any recommendations identified in December 2021.

Benefits

This product will help to simplify the connections process and remove barriers for connectees.

Public Consultation

No

Workstream 3 – DSO Transition

Introduction

WS3 will fulfil an overarching role to monitor and steer Distribution system operation (DSO) developments across all workstreams. In this capacity, WS3 is also responsible for monitoring, reviewing, and informing DSO related policy development and for the implementation of DSO functions in line with policy.

Previously, WS3 has taken on an overarching role to monitor Distribution system operation (DSO) developments across Open Networks and the wider industry and acted as the focal point for driving actions that are required for the transition in the short (ED1), medium (ED2) and long (ED3 onwards) timescales. In this capacity, WS3 has successfully delivered the Future World for Distribution System Operation (DSO), a plan for implementation across the networks, as well as a risk register for any potential unintended consequences or conflicts of interest.

Workstream Remit

WS3 will continue to fulfil an overarching role to monitor and steer across all workstreams and its objective for 2022 is as follows:

- Fulfil an overarching role to progress the development and implementation of the least regrets pathway to Distribution System Operation in line with policy across the programme, including identifying and addressing potential conflicts of interest and unintended consequences.

In addition, this workstream will also

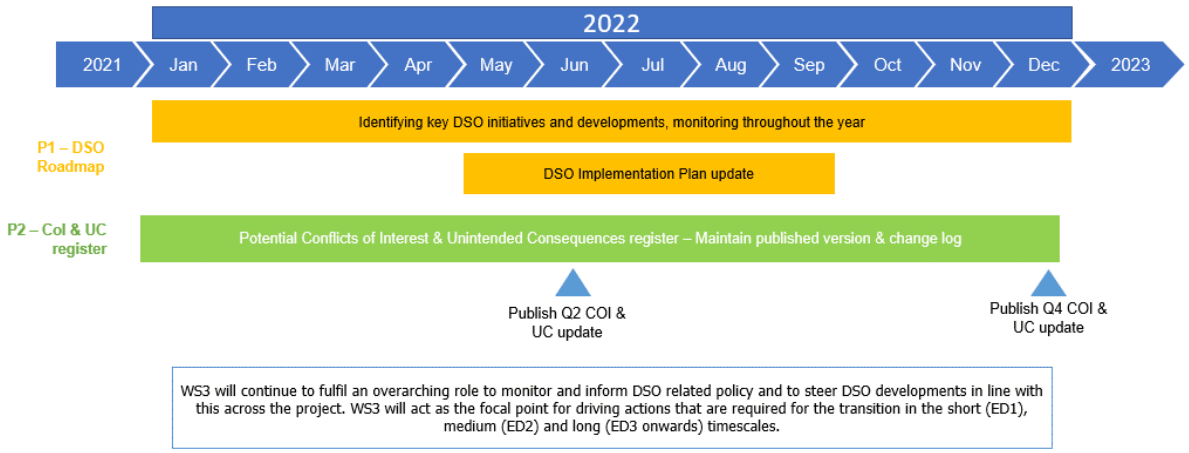
- Serve as a forum for discussion on key DSO related outcomes, including upcoming policy positions, and will consider how the DSO related outcomes are taken forward by the various workstreams in the Open Networks project.

WS3 Scope for 2022

Summary of proposed WS3 products for 2022

Fully resourced Products	
P1	DSO Roadmap Monitor and update DSO implementation plan
P2	CoI & UC Register Monitor and update Conflict of Interest and Unintended Consequences register
Activities workstream is accountable for (without a dedicated product team)	
	Monitor, review and inform policy development on DSO.
	Continue to monitor key industry initiatives including relevant innovation projects, network trials, Regional Development Programmes (RDPs) and relay appropriate learning and steer to workstreams across Open Networks.
	Identify similarities between ED2 business plan DSO baseline activities, identify areas for standardisation and coordinated activity

The best view of products and the associated activities proposed for WS3 in 2022 is set out below. The actions identified for the Open Networks in the Smart System and Flexibility plan is mapped to existing and future workstream products in Appendix 1



WS3 Product Details

P1	Distribution System Operation (DSO) Implementation Plan

Background

In 2021, several improvements were made to the DSO Roadmap to reflect stakeholder feedback and improve accessibility and usability of the tool. Furthermore, the granularity of available data was increased to give full visibility of all the individual company actions. This allowed stakeholders to see details and progress being made by individual companies on the actions in the DSO Roadmap.

Proposed activity for 2022

This product will identify key DSO initiatives and developments throughout the year. The initiatives include relevant innovation projects, network trials, Regional Development Programmes (RDPs), publication of key policy documents from BEIS/Ofgem. The product will feed learning and/or identify plans of action to other workstreams as applicable. If found relevant this shall also be reflected in the DSO Implementation Plan.

This product will build on the improvements made to update the DSO Implementation plan in Q3 2021, to provide a view of activities that are being undertaken to progress DSO functionality. This product will be developed with input from WS3 members on behalf of their respective companies. Open Networks will coordinate this input from members to feed into the next iterations of the deliverables.

Key Deliverables

- 2022 update for the DSO implementation plan (online)
- A spreadsheet format of the DSO implementation plan.
- New DSO activities/steps as applicable

Benefits

- This product will feed learning from industry initiatives into broader Open Networks workstream
- A tool to monitor progress and identify gaps to delivering DSO functionality at the time of publication, providing industry with greater visibility. This product will continue to provide a consolidation of outcomes from the Open Networks programme and industry to set out a clear pathway to the implementation of distribution system operation in the short, medium, and longer-term.

Public Consultation

No

P2	Potential Conflicts of Interest and Unintended Consequences

Background

Based on stakeholder feedback, we made a decision in 2019 to introduce this as an ongoing activity/product in the Open Networks to give stakeholders visibility of work that is taking place within Open Networks and by DNOs to investigate and address potential conflicts of interest in network and system operation functions of the DSO, as well as better understand and address potential conflicts of interest for other industry players that might lead to gaming behaviours to the detriment of customers. This product also focused on the identification of unintended consequences and mitigating actions that are required to ensure a fair marketplace that delivers the best outcomes for the consumers.
This product provides a mitigation strategy and associated actions for each risk. Risk owners are required to review and update their risks on a quarterly basis; these are quality checked by Open Networks. Heatmaps were introduced to the Register in the Q3 2020 release enabling stakeholders to focus on the greatest risks and monitor progress more easily. The product team works collaboratively with the Open Networks Comms Team (WS5), and stakeholders, to understand how engagement and the accessibility of the risk register content can be improved.

In 2021 this product was updated with several improvements to reflect stakeholder feedback and improve accessibility.

Proposed activity for 2022

This product will continue to capture and investigate potential conflicts of interest and unintended consequences raised by stakeholders; working with stakeholders it will continue to identify appropriate mitigation measures, monitor progress and provide visibility to industry.

This product will coordinate input across WS3 and work with other Open Networks workstreams and key stakeholders (including ENA's Customer & Social Issues Working Group, Ofgem, T.E.F projects etc.) to review

and update this register. We expect to publish a review at least every 6 months and will present this to all workstreams to identify any new/revised risks as the project progresses

Key Deliverable

- Updated Potential Conflicts of Interest and Unintended Consequences register formally published in Q2 and Q4 of 2022.

Benefits

- This product will seek to ensure that developments being taken forward through Open Networks are not leading to unfavourable outcomes for any particular actors in the energy landscape, in particular vulnerable customers.
- The product will build on the improvement made in 2021 and will continue to signpost risks for vulnerable customers and involve the ENA Customer and Social Issues Group in all updates of the Potential Conflicts of Interest and Unintended Consequences register. ENA's Customer & Social Issues Working Group will continue to monitor risks identified in the register and ongoing industry projects such as the Smart and Fair project will be monitored to ensure alignment on principles and recommendations.

Public Consultation

This product is available for review and comment from stakeholders at any time on the ENA website.

There is no public consultation planned for this. We will undertake regular stakeholder engagements and will maintain an open and transparent approach.

Workstream 4 – Whole Energy Systems

Introduction

ENA Open Networks Work Stream 4 ("WS4") will be in its fourth year of delivery in 2022. WS4 was created in response to stakeholder feedback to build on the work across the electricity Transmission and Distribution sectors to consider the whole energy system. Working closely with the GDNs as well as other industry reps including Energy UK, ADE and ESC, WS4 has made significant progress in building the foundations for whole system[2] thinking and for tackling whole system challenges.

Over the years, WS4 has been a key forum to discuss interactions between electricity and gas networks with focus on delivering tangible whole system change in the short term through enhanced coordination across electricity and gas networks. Examples of work have included the development and delivery of a Whole System CBA Framework that has now been incorporated into Ofgem's RIIO-2 co-ordinated adjustment mechanism.

In previous years, the focus of WS4 has been on delivering whole system change in the shorter term through more coordinated approaches across electricity and gas. As WS4 moves into its fourth year of delivery, we believe that this is the right time for us to broaden the remit of this workstream and start to address some of the more strategic challenges that we face in the transition to Net Zero. Therefore, in 2022, we are proposing to widen the objectives of WS4 to include work helping to shape Local Area Energy Planning (LAEP) and aid local authorities in their optioneering process.

WS4 will continue to be facilitated as a joint workstream between Open Networks and ENA's Gas Goes Green project that is looking at the future of gas and leading the transition to a zero-carbon gas grid.

Workstream Remit

WS4 will deliver benefits for customers and consumers by realising more cost-effective network investment and operation across the electricity and gas networks. More specific objectives for 2022 are:

- Explore the challenges for network companies (gas and electricity) and pave the way for further whole system work to address long term questions such as the decarbonisation of heat and transport, and the effects of power to gas on the energy networks.
- Support the development of frameworks with a near term focus, deliver tangible improvements to existing processes through more coordinated approaches and whole system thinking.
- Proactively support and inform the development of a national framework and associated policies for local area energy planning from a networks perspective.

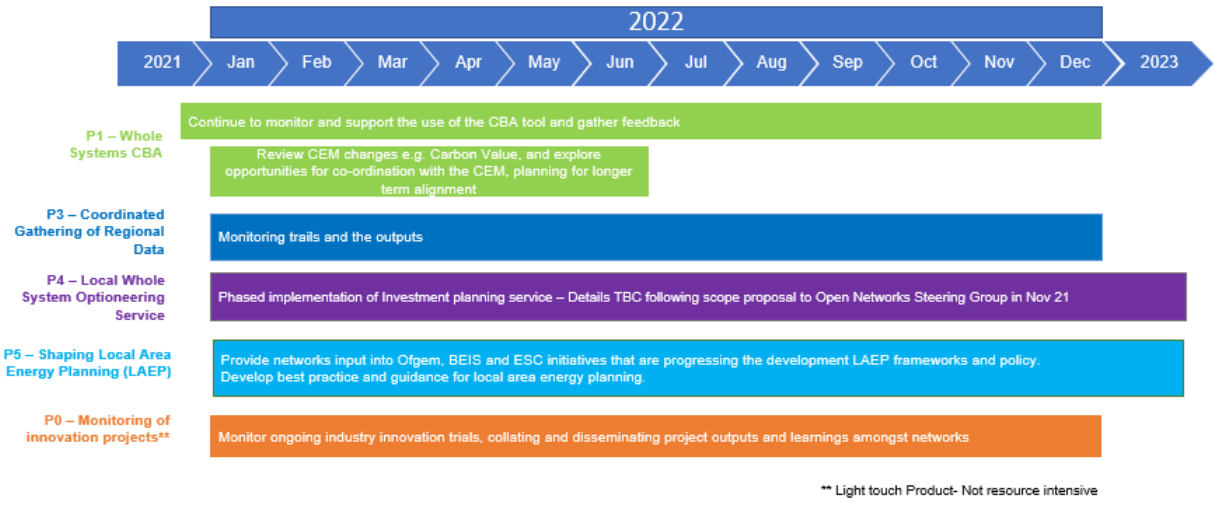
[2] Whole energy system in this context refers to Gas and Electricity vectors

WS4 Scope for 2022

Summary of proposed WS4 products for 2022

Fully resourced Products	
P1	Whole Systems CBA Further develop the CBA tool based on the stakeholder feedback from these use cases.
P3	Coordinated Gathering of Regional Data Support and monitor trails and their outputs of the longer-term local authority led approach
P4	Local Whole System Optioneering Service Implement a whole system optioneering service for Local Authorities to inform their local development plans.
P5	Shaping Local Area Energy Planning (LAEP) Co-ordinate input from electricity and gas network into the Ofgem, BEIS and ESC initiatives in the development of frameworks and tools
Light touch products (Not resource intensive)	
P0	Monitoring of innovation projects Overarching product that is being introduced to collate and disseminate the outputs and learnings from Innovation projects across the industry

The best view of products and the associated activities proposed for WS4 in 2022 is set out below.



WS4 Product Details

P1	Whole System CBA

Background

This product was kicked off in 2020 to develop a methodology and model that allows the selection of the most optimum solution (electricity or gas) on a whole system basis. This product delivered an initial methodology and tool (Version 1.0) in December 2020 that has now been incorporated into Ofgem's RIIO-2 coordinated adjustment mechanism.

In 2021, the programme supported the implementation of this tool and further testing using a range of use cases. This product will be consolidating these learnings to identify further improvements that can be made to the methodology and tool.

Please note that this product is complementary to the Common Evaluation Methodology tool that has been developed under WS1A P1 for DNOs to assess traditional network solutions against flexibility and other options to meet a particular network requirement. **There is further work proposed below to review alignment.**

Proposed activity for 2022

The product team will look to further develop the CBA tool based on the stakeholder feedback from these use cases. CBA use cases will continue to provide feedback throughout 2022.

In response to 2021 stakeholder feedback, in 2022 this product will be updated to align with changes made to the WS1A P1 CEM tool in Q4 2021. This product will also work with WS1A P1 CEM to jointly identify further opportunities for alignment in the short and medium-term and consider consolidation of CEM & CBA tools in the long-term of CEM & CBA tools. This consolidation will be considered as part of the 2022 review activity and will look to set a timeline for development and implementation.

Key Deliverables

- Revision/ Updates to the whole system CBA
- Alignment of key process that are common to CEM and Whole system CBA

Benefits

The development of a Whole System CBA in an open and transparent manner will help to alleviate any concerns that monopoly companies have a conflict of interests when deciding on a solution to meet a requirement. It will also allow a wide range of stakeholders to provide input into the aspects to be considered.

Further development of the of a Whole System CBA will broaden the scope of parameters currently assessed when taking investment decisions and will meet the aim of Ofgem to ensure that options are considered that may traditionally have been discounted as the benefits do not directly accrue to the company. This will then enable subsequent realignment of costs and benefits as per Ofgem guidance on each sector must have benefits.

It is widely recognised that well thought out and fully analysed Whole System decisions will lead to better outcomes for consumers overall through more cost-effective solutions that take into account whole energy system impacts.

Public Consultation

No

P3	Coordinated Gathering of Regional Data

Background

Through work over the years, this product has identified and developed coordinated approaches to gathering of regional data from Local Authorities.

In 2021, this product implemented a network-led approach where a regional repository was created for electricity and gas networks to store and share data gathered from Local Authorities to inform network planning. This product also engaged in discussions with Local Authorities to identify opportunities for data alignment and to initiate discussions on developing a Local Authority-led approach in the future. Trials are due to commence in Q4 2021.

Proposed activity for 2022

This product will support and monitor the trails and the outputs of the longer-term local authority led approach that was identified in 2020. This product will collate a report at the end of the year to capture the key learnings and to set out next steps.

Key Deliverables

Report setting out key learnings from trials and next steps

Benefits

- Consistency in data gathering delivers benefits to stakeholders (e.g. Local Authorities) in having consistent formats and processes to follow for providing data and reduced administrative overhead from being able to provide data once rather than being approached by multiple networks. Network companies can have more certainty in building processes against standard data sets leading to more cost-effective investment decisions.
- Industry benefits from consistent data being used across multiple parties.

Public Consultation

No

P4	Local whole system optioneering service

Background

Regional stakeholders such as Local Authorities and other regional bodies are developing increasingly challenging infrastructure plans to support their ambitions for growth and the environment. This product developed options for a coordinated optioneering service to help LAs to meet their ambitions.

In 2021 this product carried out extensive stakeholder engagement with over 100 local authorities across GB to get feedback on the function, form, and funding of an investment planning service. The conclusions drawn

from this engagement and planned subsequent actions are being tested with stakeholders ahead of delivery of the November 2021 implementation plan which will reflect all stakeholder feedback received.

Proposed activity for 2022

This product will build on the work completed in 2020 and 2021 to implement a whole system optioneering service for Local Authorities that will help them to work with electricity and gas networks and get coordinated input to inform their local development plans. This product will deliver an implementation plan in November 2021 for a go/no-go decision by the Open Networks Steering Group. This will provide a more detailed timeline of 2022 activities.

Given the potential scale of work involved in designing and implementing such a service, it is likely to take a phased implementation approach with go/no decisions at key points in 2022. Key next steps and deliverables will be defined based on this.

Benefits

Greater coordination will lead to more efficient whole system investment decisions that will deliver different options, timely capacity and lower costs for networks and customers.

Public Consultation:

Bespoke LA Engagement

P5	Shaping Local Area Energy Planning (LAEP)

Background

There are a growing number of LAEP projects across the country underway, each independent of each other. With no standardised approach or analytical methodology, the credibility of the plans is undermined, the ability to combine plans into a wider picture is reduced, comparisons will be difficult, and there will be marked inconsistencies at local area boundaries. There is also the risk that resources developing these disconnected plans is wasted, and any role the local energy networks have played would be devalued, and the need case for enabling investments weakened.

Local co-ordination is essential if we are to achieve Net Zero. Two thirds of LA's have declared a climate emergency and countless industry bodies, including the BEIS Select Committee, have highlighted the need for a co-ordinated approach. The ENA Green Recovery Scheme has shown how it can work in a co-ordinated manner - stakeholders have been very keen to get involved at a local level, with hundreds of responses.

Ofgem and BEIS have kicked off an initiative that will develop a national framework for Local Area Energy Mapping and Planning (LAEMP) that will support local areas in planning for delivering decarbonisation. In parallel, ESC is delivering work to understand how different LAEPs can fit together within a national energy system strategy and will be developing tools and best practice.

Proposed activity for 2022

In 2022, this product will have a key role to play in providing co-ordinated input into the Ofgem, BEIS and ESC initiatives to ensure that electricity and gas network considerations are and taken into account when developing these frameworks and tools.

Additionally, this product will gather learnings to date from all network companies to establish best practice and guidance for local authorities looking to develop their local plans for decarbonisation.

Key Deliverables

- Input into key initiatives
- Best practice and guidance for local authorities

Benefits

Improved Local Authority Energy Planning resulting in lower costs for consumers, faster transition to Net Zero, improved forecasting of network investments required and associated lower costs for networks.

Public Consultation

No

P0	Monitoring of innovation projects

Background

This is a new overarching product that is being introduced to collate and disseminate the outputs and learnings from Innovation projects across the industry. Over the years, products developed under Open Networks have evolved into innovation trails e.g. 2019 WS4 P2 Real time operations and forecasting was further developed outside Open Networks through innovation projects funded by the Network Innovation Allowance funding mechanism.

Introducing an overarching product will help to consolidate and disseminate the outcomes and learnings from innovation trails across the industry, deriving greater value from the findings of these trails.

Proposed activity for 2022

This product is not expected to be resource intensive and will be a workstream-led product.

This product will be further defined over the course of 2021.

Key Deliverables

TBC

Public Consultation

No

Workstream 5 – Communications and Stakeholder Management

Workstream objectives

Our key messages relate to our role in Net Zero and the Green Recovery post-COP26;

- Delivering DSO and laying the foundations for the UK's smart, flexible energy system by improving transparency, removing barriers and simplifying participation.
- Expanding local markets for flexibility; and delivering Open Data.
- Facilitating a whole systems approach with our ENA sister projects and wider industry.
- Ensuring that we are clear on how Open Networks facilitates Net Zero is key and the link will continue to be made more strongly in 2022 with targeted communications.
- Celebrating the five-year milestone of the programme.

The objectives of Workstream 5 are to:

- Effectively deliver our key messages to stakeholders through targeted and general messaging.
- Publicise the outputs from Open Networks and their contribution to the outcomes in the key messages.
- Provide customers and interested stakeholders with the opportunity to engage with our development work and better understand our output.
- Reach the breadth of stakeholders we want to engage (including parliamentarians and policy-makers, industry parties and community energy participants).

We will use a combination of public affairs, press, social media and direct engagement to raise stakeholder awareness. This workstream will continue to:

- Proactively support stakeholder engagement for key Open Networks output.
- Provide comms input and review into key publications (e.g. consultations, EoY report).
- Engage with parliamentarians & policy makers.
- Generate media and stakeholder interest.
- Generate Press Releases.
- Communicate via Social Media.
- Provide Interviews.
- Generate research material and/or communications material (e.g. animations) to support key messaging.
- Participate in event speaking opportunities.
- Review and ensure alignment with wider ENA comms work, particularly through the Media and Campaigns Group.

At the beginning of 2022, Workstream 5 will conduct a stakeholder analysis review to ensure that we are targeting the right stakeholders in the right way to support our objective. This will bear in mind any specific outcomes from COP26 and government initiatives such as the Smart Systems and Flexibility Plan.

This workstream members will continue to use their own network company communications channels to reach out to stakeholders and help ENA deliver on the overall objectives of the programme. Specific objectives include:

- Raising awareness of the five-year milestone for the programme through a range of mediums including creating a campaign page, media and digital campaigns, events, featured content and reports.
- Strengthening our local engagement activities by continuing to run Community Energy Forums in 2022, engaging with Community Energy England, Scotland and Wales throughout the year and supporting them in their initiatives and events such as Community Energy Fortnight, whilst also building on our local authority work – seeking more engagement with the likes of UK100 and the Local Government Association and collaborating closely with WS4 on any associated products such as Local Area Energy Planning (P5).
- Raising awareness of the programme's Open Governance approach - including the new Challenge Group and Dissemination forum (TBC).
- Highlighting that Open Networks is playing a pivotal role in facilitating the move towards a Net Zero future by demonstrating a planned path towards any new deliverables post-COP26.
- Raise awareness of how Open Networks and its sister projects including Innovation and Gas Goes Green are collaborating towards a Whole Energy Systems approach – including launching a Whole Systems Charter (TBC).
- Producing fresh infographics and fact sheets to give different levels of knowledge and detail depending on the audience (Q4 2022).

Product	Timeline/frequency	Audience
Five years of Open Networks celebrations – events and campaigns	Throughout the year	Energy sector, Government, MPs and media
ENA sponsored Westminster private dinners, fitting in with the wider ENA public affairs objectives agreed by the Media and Campaigns Delivery Group and Strategic Communications Committee	Annually	Energy sector, thinktanks, policymakers, Government, MPs & researchers, trade & national media
ENA sponsored panel events (virtual and in-person)	Up to three a year	Energy sector, policymakers
Webinars to provide opportunities for the wider stakeholder community to feed into appropriate	In line with Workstream consultations and product timelines	Energy sector, policymakers

Open Networks consultations and products		
Online media-buying (advertising) to promote Open Networks events, webinars & consultations on key websites (e.g. trade press)	Co-ordinated around key announcements	Energy industry, thinktanks, policymakers, Government, MPs & researchers, trade & national media
Social media collateral (animations, infographics) to promote Open Networks	Twice a year	Energy industry, thinktanks, policymakers, Government, MPs & researchers, trade & national media
Communications and engagement strategy development	Annual	ENA, ENA members, ON Steering Group
Local authority and Community Energy Events: Location costs, article, promotion	Three per year	Community Energy participants, policy makers; local authority representatives

Key Activities

ENA members

ENA will also work with individual member companies to ensure that events are aligned and there are no event clashes where possible. This will be managed through the monthly WS5 meetings.

ENA Press & Public Affairs Strategy

Open Networks is one of three Strategic Projects as part of ENA's Press & Public Affairs Strategy, as agreed by ENA's Media and Campaigns Delivery Group. It therefore forms a key part of ENA's wider communications activity and will be used throughout 2022 in wider parliamentary and stakeholder engagement.

Oversight

Workstream 5 will continue to be overseen by a sub-committee of ENA's Media and Campaigns Delivery Group. The Chair of Workstream 5 and ENA's Lead External Affairs (Open Networks) will continue to report on the progress of Workstream 5 to the Open Networks steering group on a monthly basis

Appendix A – Mapping of Smart Systems and Flexibility Plan Actions

The table below maps across the relevant actions from the Smart Systems Plan to reflect how Open Networks is taking them forward.

Ref.	Summary of SSF&P actions	Open Networks Products
1	**3.2 & 3.3 - Common framework for flexibility by 2023** • Common approaches to valuing flexibility	**2021 and 2022 products** • Common evaluation methodology and tool (ON21 WS1A P1 and ON22 WS1A P1)
	• Service requirements	• Flexibility Products (ON22 WS1A P6)
	• Frequency of procurement, procurement timelines • Pre-qualification	• Procurement process (ON21 WS1A P2 and ON22 WS1A P2)
	• Contract terms	• Standard Agreement (ON21 WS1A P4 and ON22 WS1A P4)
	• Primacy rules	• Primacy rules (ON21 WS1A P5 and ON22 WS1A P5)
	• Interfaces for provision of flex service to ESO or DNOs • Dispatch and settlement	• Dispatch and settlement (ON22 WS1A P3)
	• Baselining methodologies	• Baselining methodologies and tool (ON21 WS1A P7 and ON22 WS1A)
	• Mechanisms for sharing real time data, operational forecasting and monitoring DER	• Operational DER visibility & monitoring (ON21 WS1B P6 and ON22 WS1B P6) • Operational Data Sharing (ON21 WS1B P7 and ON22 WS1B P7)
2*	**3.4 - Ofgem review of Conflicts of Interest**	• Potential Conflict of interest and Unintended consequences (ON21 WS23 P2 and ON22 WS3 P2)
3	**3.6 - Consistent methodologies for carbon monitoring & reporting by 2023**	• Carbon Reporting (ON22 WS1A P7)
4*	**3.7 – Ofgem review of access rights incl. curtailment of flex connections**	• Review Principle of Legacy ANM contracts (ON21 WS1A P3) • Apportionment of curtailment risk (ON21 WS1A P8) • Curtailment information (ON21 WS1A P9) • ANM Curtailment Management (ON22 WS1A P8)

5	**3.3 - Changes to P2 standard to release capacity to accommodate flex & LCTs**	• Through WS1A we will monitor and support existing ENA forums that are progressing changes to the Engineering Recommendation P2 security of supply of standard through the ENA Engineering Recommendation working groups. See Appendix B for further details on the work of this group.
6	**3.3 - Framework for appropriate data sharing based on presumed "open" principle**	• Continue to work alongside ENA's Data and Digitalisation Steering Group (DDSG) to utilise, test data sharing frameworks through Open Networks products and continue to provide feedback and inputs as needed. • This includes providing input to DDSG's work on development of CIM standard and governance to facilitate data sharing between networks. See Appendix B for further details on the work of this group.

*Actions identified in SS&F plan but not direct actions identified for Open Networks

Appendix B – Other key strategic ENA initiatives & Areas of Work

Category	Initiative	Description
Data	ENA Data & Digitalisation Steering Group	The ENA Data and Digitalisation Steering Group (DDSG) was commissioned in late 2019 to focus on the digitalisation of electricity and gas network data in line with the Energy Data Task Force (EDTF) recommendations. The DDSG has made substantial progress and has delivered the following: • Proof-of-concept of the National Energy System Map (NESM) that will serve as a platform to share data publicly with non-network stakeholders and will be developing this further in the coming years. • Data triage progress to facilitate adoption of the "presumed open principles" and an Energy Data Request Service (EDRS) that is a central tool for anyone in the industry to request network data. • Kicked-off work to consider standard adoption of Common Information Model (CIM) and to develop appropriate governance structure into the EU CIM bodies. • Other work to facilitate coordination, integration and culture change. The work of the Open Networks programme and the DDSG is closely linked. Open Networks has a key role in identifying the network data that is required

		for sharing across networks (T and D) to optimise operations and with non-network stakeholders to improve information provision. Open Networks will continue to collaborate and work closely with DDSG to facilitate the sharing of this data and to seek data and digitalisation expertise where it is needed. Key areas of work that require this close interaction are: Embedded Capacity Register (WS2 P2), Operational Data Sharing (WS1B P6 & P7), sharing of curtailment information (WS1A P6) and others where dependencies are identified. https://www.energynetworks.org/info/modernising-energy-data.html
LCTs	LCT Steering Group	The Open Networks programme takes a technology-neutral approach and does not undertake development of technology specific processes to address issues for technologies such as EVs, heat pumps and storage. ENA has a Low Carbon Technologies (LCT) Steering Group that undertakes work to address specific challenges associated with the roll-out of LCTs. Their work includes the following: • Digitalisation of connection forms, including for EVs and heat pumps • EV charge point, heat pumps and cut-out databases • Guidance for domestic customers and installers for connecting LCTs Open Networks and the LCT Steering Group will continue to engage to ensure that work across the two initiatives is aligned and that cross-overs with work on flexibility and connections are appropriately managed.
Engineering	Strategic Telecoms Group	ENA runs a Strategic Telecommunications Group (STG) that is responsible for considering the development of and risk to operational communications networks. We will engage with this group and seek input as needed.
	Resilience and Emergency Coordination	ENA facilitates several groups that are responsible for maintaining and improving network resilience and response to network emergencies. Open Networks will liaise with this group and seek their input as required.
	Cyber Security Group	ENA runs a cyber security group with experts in this field. We will share ON development work with experts in this group for considering present and future requirements and will seek their input on our work to ensure cyber security risks are appropriately considered and managed. The ON project has fed into the development of the Cyber Security Guidelines for DER that were developed by ENA and BEIS in 2020 and will continue to inform future requirements.
	P2 Security of Supply	ENA facilitates the updates to Engineering Recommendations (ERECs) that relate to the P2 Security of Supply standard that is a distribution network planning standard.

		EREC P2/7 incorporated the use of flexible resources such as demand side response and storage as alternates to network assets for the provision of security of supply. EREC P2/8 is currently underway to consider reduced minimum levels of security of supply on HV circuits that would facilitate an increase in network capacity. The Open Networks Flexibility Workstream will review progress and provide input to ongoing developments.
Charging & Access	Working Groups supporting Charging and Access Reforms	In June 2021, Ofgem set out their minded to position on Access and Forward-Looking Charges and will be publishing their final decision towards the end of 2021. The ENA regulation team is working with Ofgem to support the SCR and has formed working groups to start preparation for implementation. We will interface with the ENA regulation teams and working groups involved in the SCR and charging work to manage dependencies.
Future of Gas	Gas Goes Green	Gas Goes Green is a key strategic initiative that the ENA is leading on behalf of its gas members to look at the future of gas. Open Networks and Gas Goes Green jointly facilitate the Whole Energy Systems Workstream to bring together thinking across both initiatives and will continue to do so in 2022.

Energy Networks Association
4 More London Riverside
London SE1 2AU
t. +44 (0)20 7706 5100

w. energynetworks.org
@EnergyNetworks

Energy Networks Association Limited is a company registered in England & Wales No. 04832301
Registered office: 4 More London Riverside, London, SE1 2AU