Open Networks

2022 Programme Initiation Document

January 2022 | Version 1.0

Executive Summary

Through its work over the past five years the 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 in 2021, the programme's work has helped the UK to establish world leading local flexibility markets.

Whilst good progress was 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 coupled with stakeholder feedback provided through a public consultation undertaken in Q4 2021[2], have been key inputs into the scope development process and have guided prioritisation to inform the scope set out in this document.

Flexibility remains one of our largest and most important areas of work for 2022. This Programme Initiation Document (PID) builds on the High-Level Scope document and consultation to set out the work plan for 2022. Similar to previous years, the programme will continue to take an adaptable approach to delivery to ensure that latest industry developments and practical learnings are taken into account. The Open Networks programme continues to have the commitment of the Business Leaders within network companies to resource and deliver this work plan.

Open Networks has engaged closely with stakeholders over the years and, whilst this has generally worked well, we believe that more will be needed this year. We have revised our governance to enable us to work more collaboratively with industry in developing our flexibility proposals. We have set 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 Dissemination Forum, for engagement on broader topics, has also been introduced this year for anyone to join. Additionally, we will continue to offer stakeholders the option to join focus groups and work more closely in shaping the outcomes of some key products.

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 for procurement of flexibility, primacy rules for service conflicts, defining new products and refining existing ones, and improving ANM curtailment information. WS1A will also undertake work to develop a carbon reporting methodology and will commence work to review dispatch interoperability and settlement processes.

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

- **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, and 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 connection process. WS2 will work with the ENA 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.
- **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.

The areas of focus and priorities within the programme remain the same as that set out in the 2021 High-Level Scope consultation as stakeholders broadly agree and support them. Stakeholders provided specific feedback on these focus areas and what these should be looking at as part of their scope. We believe that we have addressed this feedback in the consultation summary slides and in this PID document.

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.

Open Networks programme

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 in 2021, the programme's work has helped the UK to establish world leading local flexibility markets which are fundamental to DSO.

Open Networks continues to play a pivotal role in supporting the move towards Net Zero by enabling local flexibility markets and implementing the processes required to support them. We continue to build on existing successes and drive forward change that will improve transparency, boost new flexibility markets, and secure the supply of clean, low-carbon energy.

Open Networks is a strategic and longer-term programme of work. Through this and future phases of the programme, we will continue to further develop and implement the change required to enable Net zero.

Open Networks is working in collaboration with the industry and 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.

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 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:

- 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 (as per the Ofgem and BEIS Smart Systems and Flexibility Plan).

- 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.

- 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 as described above.

Key drivers for 2022

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. This means that 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 Smart Systems Plan also 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 Smart Systems Plan actions.

Open Networks will continue to focus on informing and implementing key policy on Distribution System Operation. Similar to previous years, we will continue to progress least regrets actions that enable us to deliver 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.

Following the introduction of the Challenge Group into our governance process (see following section) 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.

Stakeholder Engagement and Collaboration

Acting on stakeholder feedback, Open Networks launched an earlier public consultation (in comparison to previous years) in Q4 2021 on its best view of the high-level scope for 2022 to give the industry the opportunity to provide earlier input. This has also enabled the programme to set out the work plan much earlier in the year in January as compared to previous years when the finalised PID would be launched around May.

Stakeholder engagement and collaboration with the wider industry has always been at the heart of the Open Networks programme. We have continued to build on this by further opening up our governance to enable greater collaboration across the industry this year. As a result in 2022 the Advisory Group from previous years has been superseded by a Challenge Group and a Dissemination Forum. Whilst the Advisory Group worked well over the years, we believe that having the two groups will enable better participation and collaboration as well as enabling stakeholders to choose their level of involvement with the programme.

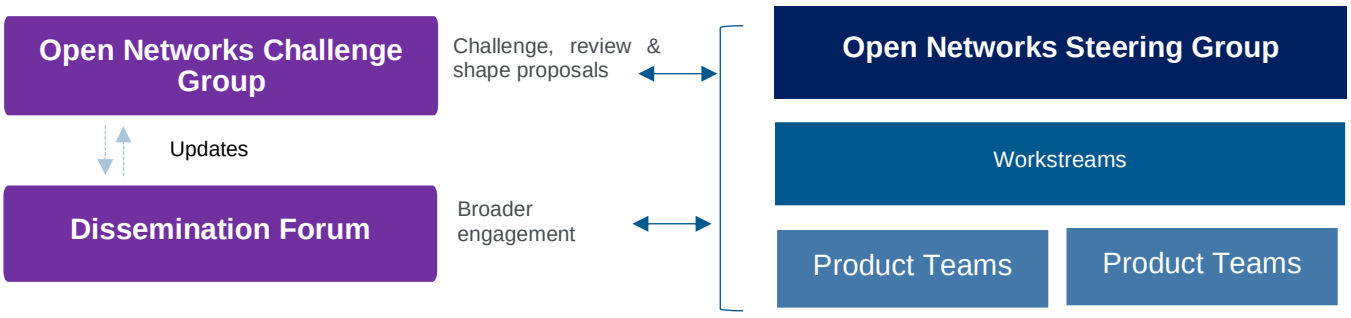
Challenge Group & Dissemination Forum

Previous feedback from stakeholders has told us that there is an appetite for greater collaboration, particularly for developing flexibility proposals, and so we have set up a Challenge Group for this year to shape the direction of the programme, its priorities, and the outcomes that it delivers by providing a more formal challenge function on behalf of the wider industry. The Challenge Group will also provide challenge on progress to ensure that the programme remains ambitious in its delivery and implementation of key proposals.

Given the programme's mandate to deliver a common framework for flexibility by 2023 we anticipate that the interest and focus of this group will be on topics that relate to flexibility however we will welcome and consider other topics. The Challenge Group has an independent chair that will represent the group's recommendations to the Steering Group.

This group is supplemented by a Dissemination Forum[3] for stakeholders wishing to engage more broadly with the programme. This forum will meet quarterly and will be open for anyone to join to enable us to share information as broadly as possible. ENA will facilitate updates across both groups to ensure that they have visibility of key discussions.

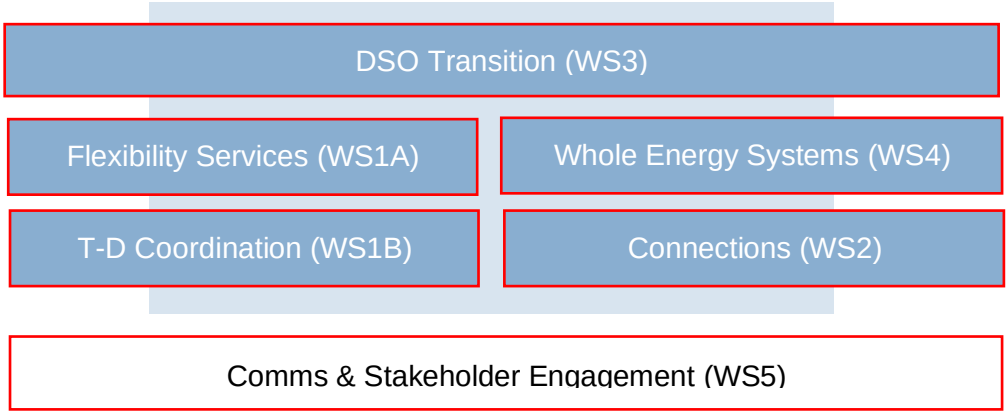
The diagram below sets out how these stakeholder engagement groups fit within and interact with the Open Networks' governance structure. Further details on the Programme's governance can be found in Appendix C.



Programme Delivery

In 2022, the programme will be delivered through 24 products that are spread across its six workstreams (shown below). The programme objectives are funnelled down to targeted objectives for each workstream. We have included the detailed programme delivery approach in Appendix E which is consistent with previous years.

[3] Interested stakeholders can join the Dissemination Forum by signing up here:



The following sections of the PID outline what the workstreams/products will deliver in 2022, how it will be delivered and when.

A summary of all of the programme deliverables is captured in a table in Appendix E.

Public Consultations

We are conscious of not overloading stakeholders with too many consultations from Open Networks amongst many other industry developments and are proposing the following consultations:

Description		**Launch Timing**
Overall Programme		
2023 High-Level Scope Consultation		Q3-22
Workstreams		
WS1A	Consultation on Common Evaluation Methodology	Feb-22
	Consultation on all Flexibility outputs up to Jul-22	Jul-22

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 in 2021 across all DNOs in Great Britain and over half of it was contracted by July 2021, indicating a 45% improvement in uptake from the previous year.[4]

WS1A is playing a key role in helping electricity networks to prioritise flexibility and deliver against their flexibility commitment. Key deliverables from previous years such as the common definition of services, development of a baselining methodology and a Standard Agreement for procurement of flexibility have 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 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. Note that 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 2022:

- 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.

[4] See ENA flexibility figures for more information

- 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, or 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 information. See Appendix B for further information.

WS1A Scope for 2022

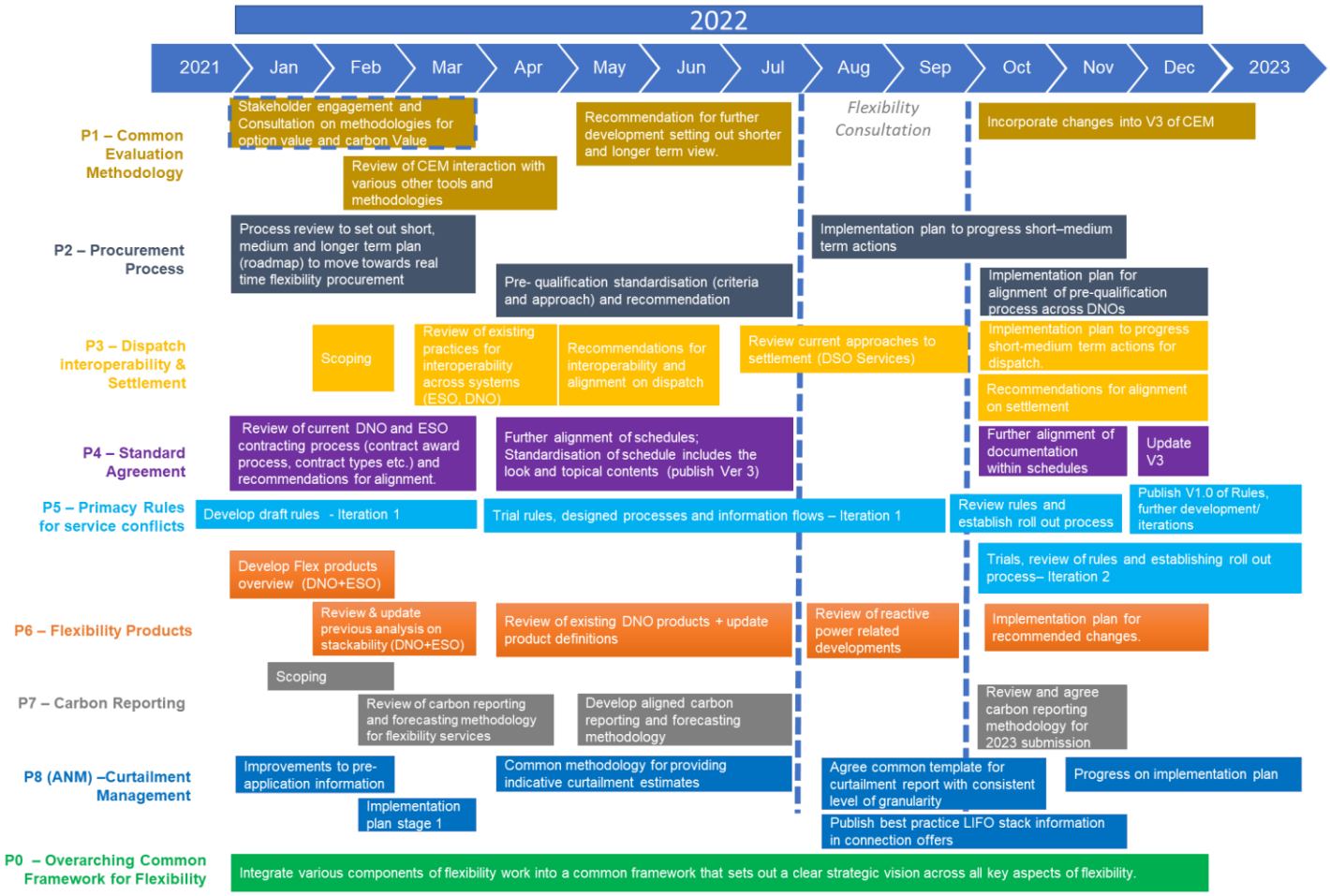
Similar to last year, we have started with a large body of potential areas of work for WS1A and have prioritised based on the keys asks of the Smart Systems and Flexibility Plan. We have ensured we set out a realistic and deliverable work plan, with the resources that are available to us, and this document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

Summary of 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 across DNOs and ESO, including pre-qualification and planning move to real time procurement.
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 and implementing 'Primacy Rules' for the ESO and the DNOs to manage service conflicts.
P6	Flexibility Products Review of existing and new Flexibility products and undertaking further analysis on stackability to address barriers.
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, residential flexibility etc.). Will be led by ENA with support from product leads and/or appropriate representatives as required.

A timeline view of these products and their associated activities is set out below:


2022
2021
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2023
Flexibility Consultation
P1 – Common Evaluation Methodology
Stakeholder engagement and Consultation on methodologies for option value and carbon Value
Review of CEM interaction with various other tools and methodologies
Recommendation for further development setting out shorter and longer term view.
Incorporate changes into V3 of CEM
P2 – Procurement Process
Process review to set out short, medium and longer term plan (roadmap) to move towards real time flexibility procurement
Implementation plan to progress short–medium term actions
Pre- qualification standardisation (criteria and approach) and recommendation
Implementation plan for alignment of pre-qualification process across DNOs
P3 – Dispatch interoperability & Settlement
Scoping
Review of existing practices for interoperability across systems (ESO, DNO)
Recommendations for interoperability and alignment on dispatch
Review current approaches to settlement (DSO Services)
Implementation plan to progress short-medium term actions for dispatch.
Recommendations for alignment on settlement
P4 – Standard Agreement
Review of current DNO and ESO contracting process (contract award process, contract types etc.) and recommendations for alignment.
Further alignment of schedules; Standardisation of schedule includes the look and topical contents (publish Ver 3)
Further alignment of documentation within schedules
Update V3
P5 – Primacy Rules for service conflicts
Develop draft rules - Iteration 1
Trial rules, designed processes and information flows – Iteration 1
Review rules and establish roll out process
Publish V1.0 of Rules, further development/ iterations
Develop Flex products overview (DNO+ESO)
Trials, review of rules and establishing roll out process– Iteration 2
P6 – Flexibility Products
Review & update previous analysis on stackability (DNO+ESO)
Review of existing DNO products + update product definitions
Review of reactive power related developments
Implementation plan for recommended changes.
P7 – Carbon Reporting
Scoping
Review of carbon reporting and forecasting methodology for flexibility services
Develop aligned carbon reporting and forecasting methodology
Review and agree carbon reporting methodology for 2023 submission
P8 (ANM) –Curtailment Management
Improvements to pre-application information
Common methodology for providing indicative curtailment estimates
Agree common template for curtailment report with consistent level of granularity
Progress on implementation plan
Implementation plan stage 1
Publish best practice LIFO stack information in connection offers
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.

WS1A Products Details

P1	Common Evaluation Methodology	
Public consultation: Yes	Focus Group: Yes	Consultancy support: Yes

Background
V1 of the Common Evaluation Methodology (CEM) and Tool developed by the Open Networks programme in 2020 went live on 1 April 2021 to be used by all 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 did not 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 initiated engagement with stakeholders in Dec 2021.

Activity for 2022
In Q1 2022, this product will continue the stakeholder engagement and then consult on the methodologies for incorporating option value into the CEM, the changes to carbon valuation included in CEM V2. Additionally, through this consultation, further views will be sought on the methodology and functionality to include in the CEM in later versions.

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 existing processes for network options assessment across the ESO and DNOs 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 following stakeholder feedback, we will further discuss and review the best approach to considering wider costs and impacts through the work under 2022 WS4 P1 Whole System CBA Methodology and will seek to work closely with stakeholders through the Focus Group to understand how we best address this.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Stakeholder engagement	Collated inputs/feedback from engagement (report/slide deck)	Summary of the input received from Expert + Critical friends engagement (not for separate publication as this will feed into the development of the wider consultation document.	Jan-22
B	CEM Consultation	Consultation document and associated deliverables	Overview of the work undertaken by the product group in 2021, including consolidation of all relevant product outputs and key questions for consultation.	Feb-22
		Stakeholder consultation	Month long consultation on 2021 CEM development work as outlined by the above consultation document.	Mar-22

C	CEM interactions	CEM interactions report and opportunities for alignment	This paper will seek to 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: This will be a joint activity with 2022 WS4 P1 and will include stakeholder engagement to further understand how consideration of wider cost and impact can be incorporated into the Whole System CBA.	Apr-22
D	Recommendation for further development	Recommendation for further development	This will consider stakeholder feedback from the CEM consultation in Q1 as well as previous feedback from other sources to consider the required changes. As part of this, prioritisation may be required to fast track the more important changes. This deliverable will clearly articulate any prioritisation and stakeholder views will be sought on this as part of the Flexibility Consultation in Jul.	July-22
E	Further Development of CEM	Ver 3 of CEM	Take on-board stakeholder feedback and initiate the further developments identified. This will likely require consultancy support. Note: The delivery timescale for V3 will depend on the scope and scale of changes identified and is likely to go into early 2023.	Dec-22 and beyond

P2	Procurement Processes	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: Yes

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. Stakeholders have broadly agreed with this conclusion and would like to see alignment across other process areas (pre-qualification, technical specifications etc.) and to see further consideration of real time flexibility procurement.

Activity for 2022
As identified in our response to the 2021 Flexibility Consultation, this product will focus on improving aspects of the procurement process such as pre-qualification and will progress thinking on the move to real time markets, mapping out steps that are required in the short, medium, and longer term to achieve this.
As part of the work on real time procurement, the product will build on the 2021 WS1A P4 Evolution Report to further develop the technical, legal, and regulatory service requirements identified in the report as required for a common procurement framework across DSO and ESO.

As part of work on pre-qualification, this product will develop a standard pre-qualification criteria and approach including the convergence of timescales such that they are accommodative even of smaller flexibility service providers. To this product will build on the preliminary work undertaken as part of 2019 WS1A P2 Procurement Processes which delivered a gap analysis to establish a view on the criteria that can be standardised. This product will also review current approaches to pre-qualification employed across DNOs and the ESO to understand the pros and cons of the various approaches, with a view to align where possible.

Note that we are staggering work on real time flexibility and pre-qualification across the year to evenly spread the workload for the product team.

Additionally, this product will work with stakeholders to further identify any improvements within the procurement process and remove any barriers to help make local flexibility markets more accessible.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Real time procurement	Recommended steps to move to real time procurement	Following a review of current network processes and development plans, this deliverable will clearly set out a best view of steps required in the short, medium and longer term to move towards real time flexibility procurement. This will be included in the consultation in Jul. This will feed into WS1A P0 that will be setting out a broader roadmap across key aspects of flexibility.	Mar-22
		Detailed implementation plan to progress short-medium term actions for real time flexibility	Develop a clear and detailed action plan that sets out how the steps identified above will be delivered by network companies and by when. Where barriers have been identified, appropriate actions should be identified and included in this plan to address them.	Nov-22

			Whilst work will commence in Aug to stagger some of the product activities, this plan will take on board any stakeholder feedback that comes through the consultation. Following the publication of this, implementation will commence as per the plan.	
B	Alignment of pre-qualification	Pre-qualification standardisation recommendation	This report will include a review of existing approaches to pre-qualification employed across DNOs and ESO, capturing the pros and cons of the different methods. The report will utilise some of the inputs from the gap analysis undertaken by WS1A P4 to develop a view of which criteria can be standardised whilst identifying the product specific pre-qualifications. Learnings from the roll out of ESO single market platform will also be noted. This report will include recommendations for the alignment of criteria and approach to pre-qualification across DNOs, seeking to align with the ESO where possible. This will be included in the consultation in Jul.	Jul-22
		Detailed implementation plan to align pre-qualification	Taking on board stakeholder feedback, update the recommendations as required and set out a clear implementation plan that outlines how and when these recommendations will be taken forward. Following the publication of this, implementation will commence as per the plan.	Dec-22

P3	Dispatch Interoperability and Settlement	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: No

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).

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 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 requires resources with different skill set the two topics are included in one product as the learning from the interoperability/dispatch exercise could feed into convergence of DNO settlement processes. The product team will be resourced to ensure key experts are available for the relevant tasks.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Scope definition	Scope document	This will be a short document that will outline a common view and definition of dispatch interoperability in the context of this product and will set out the scope for delivery of this product, across both, dispatch and settlement.	Feb-22
B	Dispatch	Review of existing practices and gap analysis	A report summarising existing practices for each network company and plans for further development as part of ED2 plans. Building on this, this report will include a gap analysis on this to identify commonalities/best practices and elements that hinder interoperability from the collated pool.	Apr-22

		Recommendations for alignment (Appended to report above)	This will set out the recommendations in the short, medium, and longer term to achieve interoperability (across DNO-DNO, DNO-TO, and DNO-ESO) and a standardised approach to dispatch. As part of this, where prioritisation has been applied, it should be clearly noted along with the justification. This will be included in the flexibility consultation in Jul. This will feed into P0 that will be setting out a broader roadmap across key aspects of flexibility. Note: It is envisioned that the recommendation will seek to standardise parts of process, systems and interactions. However, it will not include a technical specification.	Jun-22
		Implementation plan to progress short-medium term actions.	Taking on board stakeholder feedback from the consultation, this will include any updates to the recommendations that sets out how these will be delivered by networks and by when. Any barriers identified will be clearly noted along with a set of appropriate actions to address them.	Dec-22
C	Settlement	Review of existing practices and gap analysis	This will deliver a gap analysis, in the form of a spreadsheet, on existing approaches to settlement per product per DNO. This report will capture alignment and differences from the gap analysis. This will also describe the existing mechanics of payment including calculation that are applied, penalties delivery quality etc.	Sep-22
		Recommendations for alignment (Appended to report above)	The recommendation will identify possible area of alignment, clearly describing the areas that cannot be aligned along with a justification. These recommendations will cover short, medium and long-term steps that are required for alignment on settlement processes. This will feed into P0 that will be setting out a broader roadmap across key aspects of flexibility.	Dec-22

			As part of this, the product will work closely with WS1A P6 to ensure that any updated definitions of products are factored in.	

P4	Standard Agreement - Alignment of Contract for DNO/ESO services	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: Yes

Background
The Standard Agreement is a key deliverable from Open Networks that has helped to standardise and simplify the flexibility procurement process. The Standard Agreement for flexibility services was first implemented in April 2020 by all DNOs and further iterations have delivered additional improvements over the years. This product has also set out a view on the evolution of this Agreement and the move towards a framework approach.

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 Jul 2021 and 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 delivered further simplification, similar to the ESO's suite of services. The introduction of a framework approach allows contracts to be awarded, ranging from day ahead (auction-style) agreements to bilateral contracts. A framework approach essentially enables providers to respond to multiple tenders across a defined period without needing to sign specific contracts each time.

Activity for 2022
The product will provide further iterations and improvements to the Agreement and deliver Version 3. This will include further alignment of format of schedules and documentation. Working closely with ongoing development in the Regional Development Programmes (RDPs), it will also consider the need for tripartite agreements. The product will also seek to expand the product specific schedules across other ESO and DSO products.

Additionally, the product will engage with a couple of the respondents to the 2022 scope consultation to further understand and discuss contract specific feedback based on their experiences. The product will also review the outputs of WS1A P5-Primacy rules and identify changes (if any) to the standard agreement that need to be incorporated to ensure applicability of the rules. Any changes identified as part of this will be considered for V3 of the contract.

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

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion

A	Contracting processes	Gap analysis and recommendations for alignment on contracting processes	Gap analysis that captures similarities and differences in the journeys of network companies (DNO and ESO) in contracting including contract award process, and contract types (tripartite, bilateral, framework) etc. Recommendations for alignment across the various aspects of contracting and/or the Standard Agreement, noting future ambitions to move to real time operations.	Mar-22
B	Format of schedules	Recommendation to standardise format of contract schedules	This will deliver further standardisation of the format of Standard Agreement schedules. This will include the look of and high-level content of the agreement. The detailed schedule content will be product specific and therefore different. As part of this, a common set of schedule structures will also be defined that will be used for all existing and future products to help bring consistency. These will specify the order in which the schedule should be drafted (e.g. 1: Service terms, 2: glossary, 3: Annex etc.).	Jul-22
C	Format of documentation	Recommendations for standardising format of supporting documentation	Following the standardisation of the schedules format, this will identify recommendations for alignment of documentation within the schedules (e.g. order of server terms, clauses 1,2 etc).	Nov-22
D	Development of V3	Version 3 of Standard Agreement (to be continued to 2023)	Take on board stakeholder feedback (including from 2022 scope consultation), review of WS1A P5 outputs and initiate the further developments identified earlier in the recommendation for alignment (Product Element A).	Dec-22 and beyond

P5	Primacy Rules for Service Conflicts	
Public consultation: Yes	Focus Group: Yes	Consultancy support: No

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 has identified and agreed 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.

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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Develop draft Primacy Rules & the processes and information sharing needed to support them	"Draft Primacy Rules" Report – Iteration 1 "Draft Primacy Rules" Report – Iteration 2	Using the 2021 principles, this will deliver a draft set of Primacy Rules for the chosen use cases and will set out the processes and information sharing that is required to support them. As part of this work, there will be a need to understand the required changes to ESO, DNO, and FSP processes to accommodate the draft rules for the relevant use case. This report will set out the high-level impacts on networks, FSPs and platform providers. This work will also consider testing and deployment of these Primacy Rules through trials and will document the success criteria that will be used to assess the outcomes of these trials.	Mar-22 for iteration 1 Sep-23 for iteration 2
B	Implement designed processes and information flows	N/A, initiate discussions as required	Implement the required processes to allow testing of the Primacy rules. This will leverage existing testbeds such as RDP, TEF, or other projects. Note: There is a dependency on external initiatives and the timing represented here is our best view at this stage.	Jun-22 for iteration 1 Dec-23 for iteration 2
C	Test the rules	N/A, initiate discussions as required	Run the rules and identify any issues against the earlier defined success criteria.	Sep-22 for iteration 1

				Mar-23 for iteration 2
D	Review the rules and processes and establish roll out process	Report setting out trial learnings, outcomes and roll out process – Iteration 1 Report setting out trial learnings, outcomes and roll out process – Iteration 2	Review the rules, identify any changes needed. Sign off a roll out programme to accommodate the Primacy Rules.	Nov-22 for iteration 1 May-23 for iteration 2
E	Publish Primacy Rules, proposed review periods and target date for roll-out at scale	V1.0 of Primacy Rules based on iteration 1 V1.1 of Primacy Rules based on iteration 2	Following iteration 1, accommodate the trial learnings into a V1.0 of Primacy Rules. This will also include proposed review periods and target roll out dates for roll-out at scale. Further review these Rules after iteration 2 and publish V1.1 to reflect learnings. Consider the need for further review and improvement of the proposed rules at both T and D.	Jan-23, following iteration 1 Jul-23, following iteration 2
F	Governance	Primacy Rules governance approach	This will determine a short term means of governing the rules as well as a route towards an enduring governance framework.	Mar-23
G	Implementation	N/A	Roll out the rule across the relevant use cases. This may or may not include all DNOs depending on the use case need.	Mar-23 for use cases involved in iteration 1 Oct-23 for use cases involved in iteration 2.

P6	Flexibility Products	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: No

Background
Open Networks has previously developed common definitions and common parameters for 4 active power services that are being procured by DNOs. This product will take ownership of these products 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.

Activity for 2022
The product will review and update previous analysis on stackability, taking into account stakeholder inputs and feedback, including through ESO channels. This will include the development of a flexibility product catalogue 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/catalogue albeit specific to the primacy work. The aim of this work is to 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. Where barriers to stackability have been identified, this product will help to address them.

The product will review how flexibility services have been used to date and develop recommendations for any updates that may be 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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Flexibility product catalogue	Flexibility product catalogue	Consolidate a list of all flexibility products across DSO and ESO market and their existing technical characteristics.	Feb-22
B	Stackability review	Stackability report	Analysis of opportunities for stacking of services that offers a stakeholder a clear view of the flexibility product portfolio across DSO and ESO.	Mar-22

			Principles of assessing Stackability i.e. considerations such as technical, commercial, contractual etc. will also be developed by the product.	
C	Review of active power products and updates	Active power products review report	This will capture the experience and key learnings from deploying the 4 active power (DSO) products. This will identify: - Areas of divergence - Identification of factors that are barriers to markets development - Factors that improve stackability threshold for products - Other relevant factors identified by the product team	Jul-22
		Updated active power product definitions	Recommendations for refinement/alignment of technical specifications of - Existing DSO flex products (if applicable) - Learnings from developments in the area of reactive power flexibility product This will be included in the Jul flexibility consultation.	
D	Review of reactive power and other developments	Review summary (slides)	A summary of the outcomes and learnings from innovation/pilot projects that explores reactive power and other related developments that may substantiate the need for the definition of further flexibility products and services.	Sep-22
		Implementation plan	Recommendations for technical specifications of new DSO products (if applicable). Set out a roadmap, including timelines on how each DNO will roll out the recommended changes. The recommendations will ensure that the migration is consistent whilst managing contracts/tenders that use old definitions.	Dec-22

P7	Carbon Reporting	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: No
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.		

Standard Licence Condition (SLC) 31E is a relatively new licence condition that came into force in Dec 2020. As part of this, DNOs are required to report flexibility that they have procured and flexibility they intend to procure on an annual basis in March of each year. Ofgem are defining the requirements for this reporting and intend to include carbon reporting of flexibility services as part of this. The next reporting cycle is due in Mar 2022 and whilst this product will be unable to develop a consistent methodology in time for this, this product will be a part of the discussions and will take learnings on board to develop a consistent methodology for 2023 reporting.

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 will 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).

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Scope definition	Scope document	This document will outline the scope of carbon reporting, capturing an aligned understanding of the required outcomes and the use of carbon reporting for SLC31E in 2022 and 2023. Note: The product will have limited input into 2022 reporting against SLC31E due to timing. It will use the learnings from the 2022 reporting and will factor this into the work required to define a common carbon reporting methodology for 2023.	Feb-22
B	Review of carbon reporting methodologies	Report on existing carbon methodologies	A report summarising existing carbon reporting methodologies As a minimum this will include review of - ESO employed methods - Method employed by DNOs in SLC31E 2022 submission - Methods used and/or recommended in Innovation projects - General industry best practices	Apr-22

C	Development of methodology	Carbon reporting and forecasting methodology	Details of recommended method for carbon reporting including calculation process, considerations of technologies, data requirement, and data availability. The recommended method should seek to balance simplicity vs accuracy while clearly discussing the levels of "embedded carbon" to be considered. Additionally, as part of this work, reporting and calculation templates will be considered and developed as required. In response to 2022 scope consultation feedback, this product will also consider the corelation of the carbon reporting and energy efficiency as part of this methodology. This will be included in the Jul flexibility consultation.	Jul-22
D	Review and update	Updated consolidated report	Update based on feedback from consultation.	Nov-22

P8	ANM - Curtailment Information	
Public consultation: Yes	Focus Group: Yes	Consultancy support: No

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 Q2 of 2022.

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 to create additional services for Flexibility Service Providers (FSP) who can replace the curtailment needs with flexibility products. This product has worked with stakeholders and DNOs to prioritise information needs and has developed an implementation plan (through 2021 WS1A P9 ANM Curtailment Information), for improving the provision of curtailment information in 2022.

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.

Activity for 2022
This product will follow through on the steps identified in the implementation plan for improving the provision of curtailment information that was published in Dec 2021 through 2021 WS1A P9 ANM Curtailment Information.

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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Improvements to pre-application information	Recommendations (slides)	Recommendations for DNO's to agree consistent timeframe for updating constraint information on heat maps	Feb-22
B	Implementation stage 1	Publish profiles	DNO's to publish - Generation and battery storage standard profiles - Curtailment estimates on heat maps	Mar-22
C	Improvements to pre-application information	Common methodology for providing curtailment estimates	Report describing common methodology for providing indicative curtailment estimates based on technology/location	Jul-22
D	Consistency of data	Common approach to sharing information	The report will include: - Agreed common template for curtailment report with consistent level of granularity - A set of aggregated ANM actions/curtailment and publish in consistent format	Oct-22
E	Improvements to flexible connection offer information	Best practice for providing connection offer information Publish LIFO stack information	Paper to establish best practice for providing LIFO stack information. Publish best practice LIFO stack information in connection offers	Nov-22
		Guidance document on standard assumptions	Prepare and publish guidance document on standard assumptions used in curtailment assessments	
F	Implementation stage 2	Flexible connection curtailment report	DNOs to publish agreed flexible connection curtailment report in line with agreed template	Dec-22 and beyond

P0	Overarching Common Framework for Flexibility	
Public consultation: Yes	Focus Group: No (engagement via other existing channels)	Consultancy support: No

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. Additionally, consolidating the outcomes into a common framework will help to make key outputs easily accessible for the industry.

This product will kick off with a scoping activity to further define the scope and the deliverables associated with this. 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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Scope definition	Scope document	Refine the scope and further define deliverables. This will be in the form of a short one-two page paper. In addition to a common framework for flexibility and strategic roadmap, this product will consider GB-wide reporting of flexibility figures (format and frequency) and will set out any deliverables associated with this.	Feb-22
B	Common framework for flexibility	Draft common framework for flexibility	Develop draft common framework for flexibility and seek stakeholder input through Jul flexibility consultation.	Jul-22
		Updated common framework	Update to reflect consultation feedback.	Dec-22
C	Strategic flexibility roadmap	Draft strategic roadmap	Set out a clear strategic view of further development required to mature processes across key aspects of flexibility (e.g. contracting, procurement including real time	Jul-22

			procurement, interoperability across platforms, residential flexibility etc.). This will be included in the Jul flexibility consultation for feedback.	
		Updated strategic roadmap	Update to reflect consultation feedback.	Dec-22
D	Consolidated flexibility procurement reporting to show size of markets in UK.	GB wide Flex figures	Align the flexibility figure reporting process with C31E to avoid any duplication of effort. Update the figures using the data from the individual April C31E submissions .	Jul-22

WS1A Workstream Activities

WS1A Workstream activities				
Ref	**Product Element**	**Activities**	**Scope/description**	**Expected Completion**
A	Based on 2021 WS1A P6 Non-DSO Services	Monitor ongoing trials and develop recommendations for 2023	Following on from 2021 WS1A P6 monitor ongoing network trials (Transition/Leo) to inform non-DSO services. Capture learnings and recommendations, and feed into 2023 Open Networks scoping activities.	Jul-22 & Nov-22
B	Following on from 2021 WS1A P7 Baselining Methodologies	Monitor roll out of tool	Following on from 2021 WS1A P7, monitor roll out of baselining tool developed in 2021,	Ongoing
C		Stakeholder engagement	Lead on stakeholder engagement and collating learning and develop recommendations for future development	TBD
D	Support key strategic initiatives	No deliverables	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.	Ongoing
E	Monitor changes to ER-P2 Security of supply standard	Feed back to P0 as appropriate	Monitor changes to ER-P2 Security of supply standard to release capacity to accommodate flex & LCTs undertaken by ENA's engineering recommendation working groups	Ongoing
F	Maintain flexibility procurement timeline	Update ENA timeline tool (Preceden) to provide GB-wide view of flexibility tenders	ENA maintains an online interactive tool that gives visibility of all upcoming flexibility tenders. All WS1A representatives will be responsible for regularly updating this (once a month or when key changes occur) to	Ongoing

			provide a GB-wide view of upcoming flexibility tenders.	
G	Scope recommendation for 2023	Scope recommendation (in appropriate template/format)	Recommendation from all product teams and workstream for the areas of work to be considered for 2023 work plan. Early recommendations in Jul to inform proposed high-level scope for 2023 consultation. Further input in Dec to reflect stakeholder feedback and finalise 2023 PID.	Jul-22 & Nov-22

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 (DSO). Since 2017, WS1B has enhanced Transmission-Distribution (T-D) 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 this workstream has supported work on the development of standard approaches to new licence conditions including an end-to-end NDP process and a whole electricity system co-ordination 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 objectives of this workstream for 2022 are to:

- Optimise existing planning and forecasting processes across the Transmission-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, ESO, and non-network market participants.

In addition, this workstream also supports:

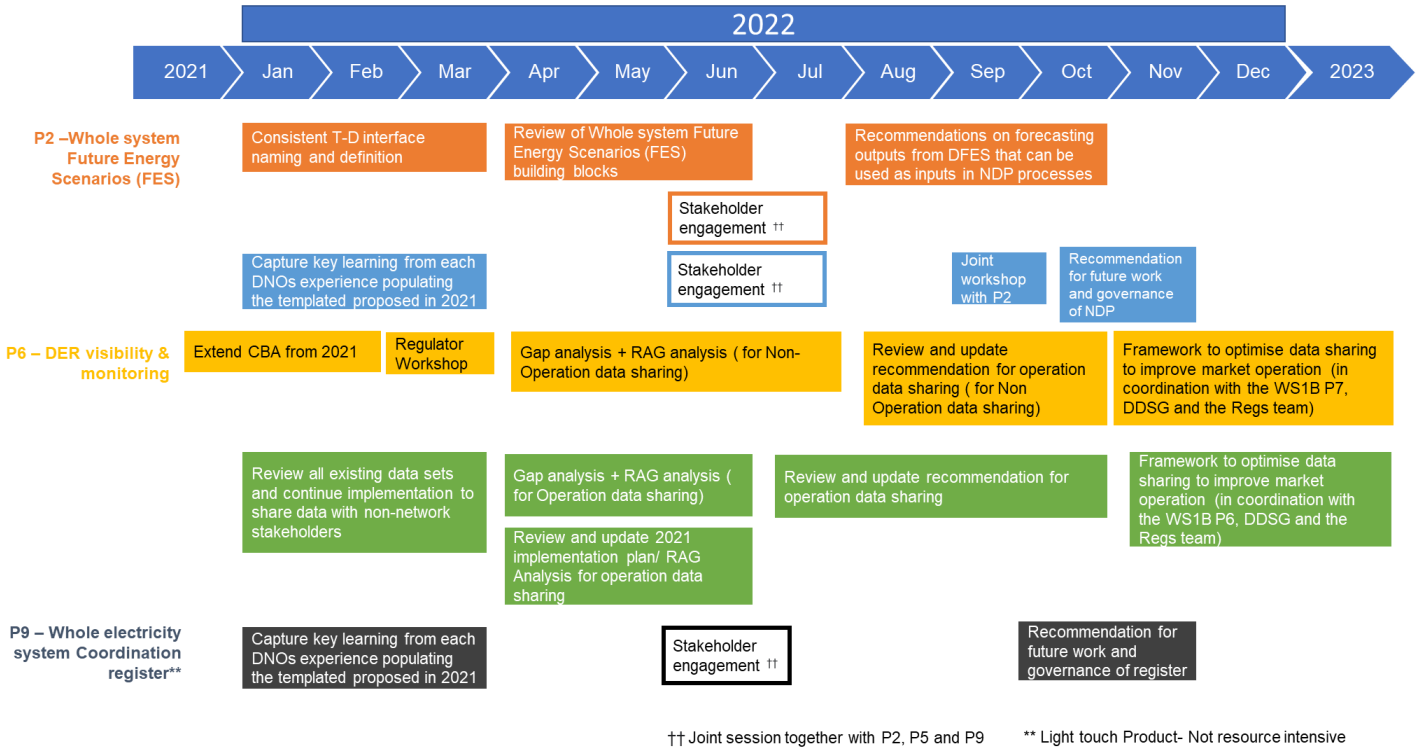
- Network companies to comply with new licence obligations that are identified to be implemented through the Open Networks, ensuring consistency on how network companies produce and publish associated reports.

WS1B Scope for 2022

Summary of WS1B products for 2022

Fully resourced Products	
P2	Whole System Future Energy Scenarios Further alignment between Future Energy Scenarios (FES) and Distribution Future Energy Scenarios (DFES)
P6	DER visibility & Data sharing Recommendation and implementation plan for gaining visibility of Distributed Energy Resources (DER).
P7	Operational data sharing Mechanism for sharing real-time operational and forecasting data between ESO and DNO.
Light touch products (Not resource intensive)	
P5	Network development plan Review and updates to Network Development Plan Form of Statement as required
P9	Whole electricity system Co-ordination register Review and update Whole Electricity System Co-ordination Register Form of Statement as required

A timeline of these products and their associated activities is set out below:



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 Distribution FES (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 Network Development Plans (NDP). This “Best View” scenario is aligned to the DFES scenarios and is suitable for Long Term Development Statements (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.

Activity for 2022
This product will continue to deliver the coordination activities required to align FES and DFES activities and will 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.

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.

Later in the year, this product will also seek to deliver recommendations for further alignment on forecasting outputs from DFES that can be used as inputs in NDP processes.

Note: The stakeholder engagement activities across related WS1B products (WS1B P2 FES, WS1B P5 NDP, and WS1B P9 Co-ordination Register) will be consolidated.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Alignment of GSP definition	Consistent T-D interface naming and definition	Agree a consistent definition for Grid Supply Point (GSP) groups and associated names across GB between the ESO and all DNOs. The GSP names will be used for the whole system FES building block data exchange and the approach to improve consistency will consider the Week 24 definition of GSPs.	Mar-22
B	Review of FES & DFES building blocks	Paper explaining purpose of various energy scenarios	Overview of different energy scenarios, their purpose, similarity and differences aimed at providing clarity of the topic to stakeholders.	Apr-22
		Paper defining alignment requirements and justification	Define alignment requirements and justify misalignment where appropriate for profiles used in key building blocks that are used to inform peak demand and annual energy consumption/generation, e.g. profiles for EV charging, heat pump demand and PV generation	Apr-22
		Updated FES & DFES building blocks	Review of FES & DFES data building blocks from past year and update them if necessary.	Jun-22
C	Stakeholder engagement	Stakeholder engagement sessions/webinar	Deliver a webinar to engage stakeholders on key work on "Best View" scenario. The webinar is envisioned as a joint event together with other interdependent work in WS1B (for the best view scenario, NDP and co-ordination register) to help stakeholder to understand the interdependence of various factors within Open Networks WS1B.	Jun-22
D	Best Practice recommendation	Report showing recommendations for forecasting outputs used in NDP	Report providing recommendations on appropriate forecasting outputs from DFES that can be used as inputs in NDP processes (for 2023 publication) for both conventional reinforcement and flexibility service optioneering. As part of the recommendations, clear next steps to	Oct-22

			progress them and implementation timelines will be specified.	

P5	Network Development Plans

Background
In 2019 a new licence condition was introduced requiring DNOs to publish Network Development Plans (NDP), in accordance with the Clean Energy Package, on an annual basis. WS1B 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.

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 Transmission-Distribution boundaries, this product will continue to scrutinise how the NDP content co-ordinates with transmission network capacity reporting so that the NDP provides optimal stakeholder utility. The product team 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 Long Term Development Statements (LTDS) review.

Note: The stakeholder engagement activities across related WS1B products (WS1B P2 FES, WS1B P5 NDP and WS1B P9 Co-ordination Register) will be consolidated.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Pre-publication Debrief	Collated feedback (not for external publication)	Prior to the publication of the 2022 NDPs, a list to capture key learning from each DNOs experience of populating the templates (proposed in 2021) will be collated. This list will capture the areas of concern for internal	Mar-22

			stakeholder (DNOs), and recommendations (if any).	
B	Stakeholder engagement	Stakeholder engagement sessions/webinars	Deliver a webinar to signpost the key work on NDP. The webinar is envisioned as a joint event together with other interdependent work in WS1B ("Best View" scenario, NDP, and co-ordination register) to help stakeholders understand the interdependence of various factors within Open Networks WS1B.	Jun-22
C	Joint workshop with WS1B P2	No deliverable envisioned	Joint session to help WS1B P2 FES in the development of recommendations.	Sep/Oct-22
D	Future recommendations	Updated Template/FoS and recommendation	The final version of the Template and FoS incorporating internal and external stakeholder inputs along with recommendations for future work relating to the product along with governance of the NDP.	Nov-22

P6	**DER Visibility and Data sharing**

Background

In August 2020, Ofgem published a call for evidence on Distributed Energy Resource (DER) visibility, signalling their intention to establish a clear policy on DER monitoring requirements. In 2021, this product identified a range of use cases for DER visibility and monitoring and defined functional specifications for these.

A cost-benefit analysis (CBA) will be undertaken in Feb 2022 (rolled over from 2021 due to resourcing constraints) to establish the needs case for DER visibility, this will inform Ofgem's policy on DER monitoring requirements.

Activity for 2022

Continuing the work from 2021, the product will deliver the CBA and will host a deep dive session with the regulator to facilitate an understanding of the recommendations that will feed into Ofgem's policy development.

The work undertaken in 2021 focused on the visibility of DER and data sets that are required by network companies from the DERs point of connection (PoC). In 2022 this product will further this work to explore sharing of this data (in addition to other non-operational data) amongst network companies.

Following the handover of the CBA to Ofgem, the product will work in parallel with WS1B P7 Operational Data Sharing to develop recommendations to standardise mechanisms for ESO-DSO non-operational data sharing.

WS1B P7 will initially identify the data sets shared between various parties. The list will clearly distinguish between operational and non-operational data sets under the below categories:

1 - ESO to DNO/DSO

2 - DNO / DSO to ESO
3 - ESO to market participants
4 - DNO / DSO to market participants (initiated by P7 in 2021)

From the above list, P6 will then explore data sharing needs and mechanism for non-operational data. The data sharing of operational data will be explored in P7.

This product team will then develop an implementation plan for delivering visibility of DERs across network companies, signposting the trade-offs, challenges, and benefits. Where data sets vary across companies, there will also be a need undertake further work to commonly define these data sets.

This product team will then deliver recommendations for alignment on sharing non-operational data (e.g network visibility, and forecasting) across network companies. This product will continue to liaise with ENA's Data and Digitalisation Steering Group (DDSG) to explore data sharing mechanisms identified in the framework document (Data Triage Playbook), as required.

Note: in 2022, this product along with WS1B P7 will continue to liaise with GC0117 working group to ensure data sets essential for GC0117 are included in the analysis.

This will support the delivery of action 3.3 in the Smart Systems and Flexibility Plan that requires shared processes for monitoring DER.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	CBA (rolled over from 2021)	CBA and updated report	CBA and report describing the findings from this analysis along with the justifications and assumptions.	Feb-22
B	Regulator Workshop	Joint workshop (Ofgem)	Deliver a deep dive session to facilitate understanding of the recommendations that feed into Ofgem's policy development.	Mar-22
C	Data sharing Gap analysis	RAG analysis Spreadsheet and DNO gap analysis	RAG analysis of data (non-operational data only) identified in product element A for WS1B P7) and assess use of this data by market participants. Review and identify commonalities and differences for existing data sharing across DNOs.	Jul-22
D	Data Sharing mechanisms	Evaluation report and recommendations	Produce list of new data sets with breakdown of requirements and data formats Short- and longer-term recommendations to standardise mechanisms for sharing real time data and operational forecasting between ESO-DSO (Points no 1 & 2) to improve process efficiencies and collaboration with ENA's Data and Digitalisation Steering Group to support the development of an appropriate implementation plan.	Oct-22

E	Implementation Plan	Implementation plan	Produce a plan to align data sets for sharing with other industry participants in short and long timeframes, following recommendations from DDSG. Consider all legal feedback, raise with Ofgem, and seek stakeholder engagement.	Dec-22 and beyond

P7	**Operational Data Sharing**

Background
In 2021 WS1B P7 performed a gap analysis (Red, Amber, Green (RAG) Analysis) to identify operational data and information that the network companies can share with non-network market participants and 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.

An implementation plan for sharing "Green" data in the RAG analysis was delivered in Dec 2021.

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

Building on the 2021, this product will work in parallel with WS1B P6 to develop recommendations to standardise mechanisms for sharing operational data between ESO-DSO and between network companies and non-network participants

WS1B P7 will initially identify the data sets shared between various parties. The list will clearly distinguish between operational and non-operational data sets under the below categories:
1 - ESO to DNO/DSO
2 - DNO/DSO to ESO
3 - ESO to market participants
4 - DNO/DSO to market participants (initiated in 2021)

From the above list, WS1B P7 will then explore data sharing needs and mechanism for operational data. The data sharing of non-operational data will be explored in WS1B P6.

This product will continue to liaise with ENA's Data and Digitalisation Steering Group (DDSG) to consider the potential of sharing mechanism identified in the framework document (Data Triage Playbook). The product will continue to monitor the development of Common Information Model (CIM) work under the DDSG and review its applicability for operational data sharing between DSO-ESO in the short term and/or longer term.

Where data sets vary across 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 DSOs and external non-network parties, in 2022, this product will continue implementation as per the plan and explore inclusion of additional data sets to share such as those that were in 'Amber' and not included in the 2021 implementation.

Note: in 2022, this product along with WS1B P6 will continue to liaise with GC0117 WG to ensure that data sets essential for the GC0117 are included in the analysis.

This will support the delivery of action 3.3 in the Smart Systems and Flexibility Plan that requires shared processes for monitoring DER.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Review all existing data sets	Review of existing data sets that are shared between various parties	Detail the various data sets shared between various parties in operational and non-operational timescales including between: 1 - ESO and DNO/DSO 2 - DNO/DSO and ESO 3 - ESO to market participants 4 - DNO/DSO to market participants (update 2021 list) Detail reasoning/justification for sharing these data sets, and relevance of data to current and future working proposals (changes for DSO/ED2). Close coordination with WS1B P6 required.	Feb-22
B	Implementation stage 1	Implementation	Continued implementation as per the 2021 plan to make DNO data identified as "Green" in 2021 RAG analysis to non-network stakeholders. (Point 4 above)	Mar-22
C	Data sharing gap analysis	RAG analysis Spreadsheet+ DNO gap analysis	RAG analysis of data (for operational data only) identified in A (for Points no 1, 2, and 3 above). Updated RAG analysis (for Point 4 above, following a review of 2021 gap analysis and recommendation to progress data sharing of Amber entries). Assess use of data by market participants and include detailed breakdown of changes required Review and identify commonalities and differences for existing data sharing across DNOs.	Jun-22
D	Data Sharing mechanisms	Recommendations for data sharing (including appropriate mechanisms)	Produce list of new data sets with a breakdown of requirements and data formats. Short- and longer-term recommendations to standardise mechanisms for sharing real time data and operational forecasting	Oct-22

			between ESO-DSO (Points no 1 & 2) to improve process efficiencies and collaboration with ENA's Data and Digitalisation Steering Group to support the development of an appropriate implementation plan.	
E	Implementation stage 2	Implementation	Continued implementation as per the 2021 plan to make DNO data identified as "Green" in 2021 RAG analysis plus additional data sets that moved from "Amber" to "Green" available to non-network stakeholders (point 4 above). Continued implementation as per the 2021 plan to make data available (i.e. 'Green' in the RAG analysis) to non-network stakeholders including additional data sets that moved from Amber to green (point no 4 above).	
F	2023 Implementation Plan	Data sharing framework	Seek input from DDSG to produce a plan to align data sets for sharing with industry in short and long timeframes. Consider all legal feedback, raise with Ofgem, and undertake stakeholder engagement.	Dec-22 and beyond

P9	Whole electricity system co-ordination register

Background

In 2021 a co-ordination register was developed in response to the 2021 Standard License Conditions D17 (distribution) and 7A (transmission). The purpose of the Co-ordination Register is for the Electricity Distribution 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 Co-ordination 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.

Activity for 2022

In 2022, the product team will further develop the co-ordination register Form of Statement to build on stakeholder and user feedback captured in the product webinar, in Q2 following the publication the register.

Note: The stakeholder engagement activities across related WS1B products (WS1B P2 FES, WS1B P5 NDP and WS1B P9 Co-ordination Register) will be consolidated.				
Deliverables for 2022				
Ref	**Product Element**	**Deliverables**	**Scope/description**	**Expected Completion**
A	Internal stakeholder engagement	Updated Template/FoS	Review feedback received from DNOs using the register, and update the FoS if required. This final version will be used for the 2022 publication.	Jan-22
B	Pre-publication debrief	Collated feedback (not for publication)	(Before publication of 2022 Co-ordination register by DNOs). The list will capture key learnings from each DNO's experience populating the templated proposed in 2021. The list will capture the areas of concern for internal stakeholder (DNOs), and recommendations (if any).	Mar-22
C	External stakeholder engagement	Stakeholder sessions/webinars	Deliver a webinar to sign post the key work on "Whole electricity system Co-ordination register". The webinar is envisioned to be a joint event together with other interdependent work in WS1B ("Best View" scenario, NDP, and co-ordination register) to help stakeholders understand the interdependence of various factors within Open Networks WS1B.	Jun-22
D	Governance meeting	Updated Template/FoS	The final version of the Template and FoS incorporating internal and external stakeholder inputs along with recommendations for future governance of the Whole electricity system Co-ordination register.	Nov-22

WS1B Workstream Activities

WS1B Workstream activities				
Ref	**Product Element**	**Deliverables**	**Scope/description**	**Expected Completion**
A	2022 Scope consultation feedback on co-located projects	Recommendation	Discuss feedback received from Open Networks 2022 High-Level Scope consultation regarding metering requirements co-located projects and develop a view on whether the resolution of this issue or parts of issue can be undertaken through some of the existing	oOngoing

			workstream products or as a separate product.	
B	Monitor GC0117	Respond to any RFI as applicable	Monitor development of the code modification GC0117 and provide supporting information as required (e.g though RFIs, or other agreed mechanism). Discussion with GC 0117 is ongoing.	Ongoing
C	Monitor industry developments on outputs delivered in the past	No deliverable. Feedback to relevant products as applicable	-Investment planning (2020 WS1B P1) -Real Time Data Exchange (2020 WS1B P3) -Data Exchange in Planning Timescales (2020 WS1B P4)	Ongoing
D	Code mod review	No deliverables	Liaise with WS2 P0 to identify areas of work with WS1B that need to be codified	Ongoing
E	Collaborate with other ENA working groups	No deliverables. Feedback to relevant products as applicable	Work in collaboration with other ENA working groups (such as the Data and Digitalisation Steering Group (DDSG), ENA Engineering recommendation, EV/Low Carbon Technology (LCT) working groups etc), ensuring value delivered together is greater than the sum of its parts	Ongoing
F	Scope recommendations for 2023	Scope recommendations (in appropriate template/format)	Recommendations from all product teams and workstream for the areas of work to be considered for 2023 work plan. Early recommendations in Jul to inform proposed high-level scope for 2023 consultation. Further input in Dec to reflect stakeholder feedback and finalise 2023 PID.	Jul-22 & Nov-22

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 of 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 to:

- 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 processes that follow on from some of the key deliverables of the products in the workstream, such that they are implemented across network companies.

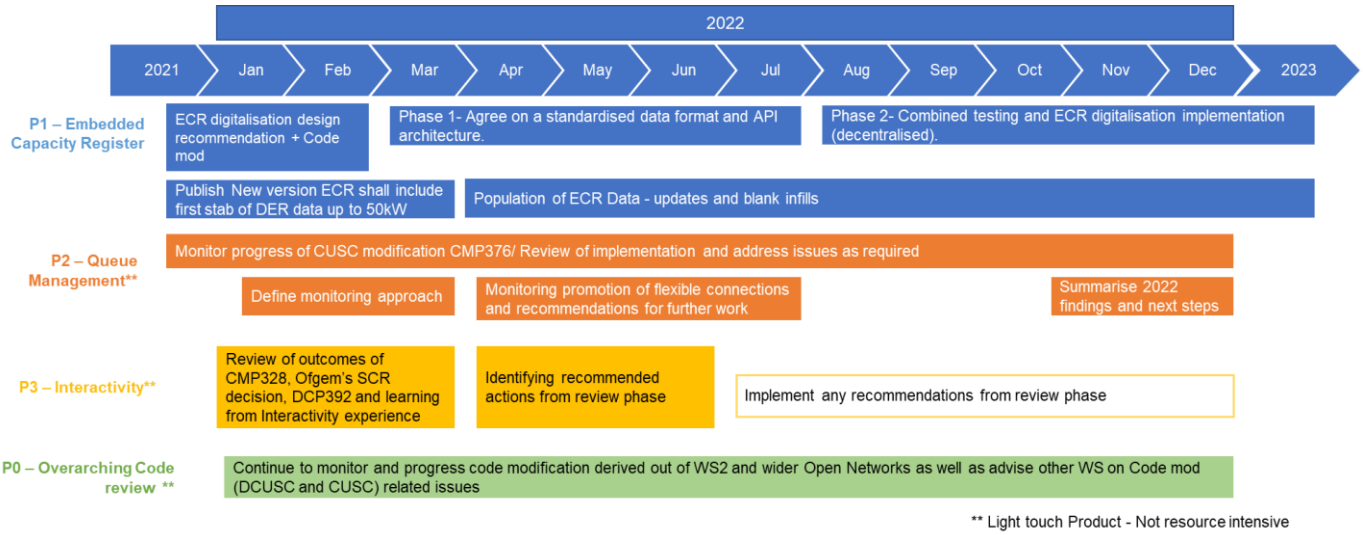
WS2 Scope for 2022

We will continue to build on the outcomes that we have delivered in 2021, including the Embedded Capacity Register, and 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.

A timeline view of products and the associated activities identified for WS2 in 2022 is set out below:



Summary of WS2 products for 2022

Fully resourced Products	
P1	Embedded Capacity Register (ECR) Further development and digitalisation of the Embedded Capacity Register (working in collaboration with DDSG, with co-leads from both the product team and the DDSG).
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.
P0	Overarching code review Monitor and progress code modifications derived from WS2 outputs and the wider Open Networks programme, and advise other workstreams on code mod related issues.

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 was released in October 2021 following Ofgem's approval of G99.

An implementation plan has been 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.

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 of resource and potentially 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.

A review of the existing ECR will be conducted to identify and remedy any data gaps and/or misalignments in the ECRs.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	ECR digitalisation design recommendation	Design recommendation proposal	This report will describe the recommended solution architecture for the digitalisation of ECR. The report will explain the pros and cons of the various approaches considered	Jan-22

			along with a detailed justification of the proposed decentralised solution. The report will clearly set out the benefits to both DNOs and the external parties with the proposed approach, along with risks associated. The report will also contain a high level view of the different phases of implementation for the decentralised architecture.	
B	Code modification	Revised DCUSA mod	Revision to modification of the code to allow for publication of up to 50kW DER information.	Feb-22
C	Publication of new ECR version	Updated ECR	The new ECR version will include the first tranche of DER data up to 50kW (incorporated as an additional tab in the same layout of the existing ECR).	Mar-22
D	ECR digitalisation implementation (decentralised Phase 1)	1) Agree on a standardised machine-readable format for the ECR 2) Agree on the API architecture required to push ECR data	The key elements are to agree on a common and standardised format, then draw up a blueprint for the API architecture that'll be used to serve the ECR data. The implementation of API endpoints will have to be done by each DNO. A DDSG representative will be available for guidance and troubleshooting if required.	Jul-22
E	Data updates	Updated ECR	Ongoing exercise of data review, scrubbing, and infilling blanks.	Ongoing
F	ECR digitalisation implementation (decentralised Phase 2)	Combined Testing report	Build and test the API as per deliverable (D). This will be done by each DNO individually with guidance from DDSG rep if needed.	Ongoing

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, started implementation of these proposals from 1st July 2021. A CUSC modification (CMP376) was raised and monitored by the product team in 2021.

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 Jul 2021 (CMP376).

As part of monitoring the implementation of QM processes the product team will develop a methodology to track and analyse any terminated contracts. It is to be noted that these are not likely to be seen at least until

the second half of the year due to timescales associated with the connections process. The product team will also define the criteria for success of QM proposals and will monitor this through the year to assess and gauge the success of these proposals. Where issues are identified, these will be reviewed and addressed by the team, updating the QM processes when required.

Additionally, 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. The product will also recommend a method to track and analyse any terminated contracts in a standardised way.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Monitor progress of CUSC modification CMP376	N/A	Monitor progress and address issues as required, ensuring alignment and coordination with DNOs to manage implementation of these proposals at a distribution level.	Ongoing
B	Review of implementation	N/A	Identify any potential issues raised and assess potential impact on QM Guide.	Ongoing
C	Monitoring promotion of flexible connections	Paper outlining promotion of flexible resources and any recommendations for further work under ON in 2023	This paper will outline how DNOs have been promoting flexible resources in the connections queue and will consider any further work that is required to standardise this in 2023.	Jul-22
D	Monitoring of QM implementation	Approach for monitoring	Set out approach for how networks will monitor the implementation of QM (both successes and failures). This will include setting out a method to track and analyse any terminated contracts, as well as define a criterion for gauging the success of QM proposals. Where issue have been encountered, corrective actions will be identified and put in place. This may include updating the QM guide.	Mar-22
		End of year report	An end of year report will be delivered to summarise the main findings from these monitoring activities, and propose next steps.	Dec-22

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.

Note: CMP328 is seeking to put in place an appropriate process to be utilised when any connection triggers a Distribution impact assessment. DCP329 is addressing charging of Third Party DNO works to transmission connection users

Activity for 2022
This product includes rolled over 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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Review of outcomes of CMP328	Updated User Guide (v2)	Updated User Guide with reference to CMP328 process outcome reflecting the learning from Interactivity experience and update User Guide (carry over action from 2021).	Mar-22
B	Review of outcomes of Ofgem's SCR decision.	Draft updates to User Guide reflecting new SCR principles	Identify changes required, appropriate customer engagement, and governance/sign off.	Dec-22
C	Review of outcomes of DCP392.	Updated User Guide with reference to DCP392 outcome as appropriate	Identify changes required, governance, sign off.	Dec-22
D	Implement any recommendations from review phase	Updated User Guide (v3)	Updated User Guide reflecting new SCR/DCP392 principles	Dec-22 and beyond

P0	Overarching code review

Background
This is a new overarching product that is being introduced to integrate the various components of code modification covered across multiple products within Open Networks. In the past several activities withing WS2 and wider Open Networks have resulted in a code modification (CUSC, Grid code, DCUSA etc). This overarching product will seek have an oversight of the process to monitor and signpost appropriate actions to suitable workstreams and products within Open Networks.

This product will also function as an internal advisory team for Open Networks to help identify appropriate activities across all workstreams that need to be codified.

This product is not expected to be resource intensive and will be formed from product leads and/or appropriate product team representatives,

Activity for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Monitor and support implementation	No deliverables – provide recommendations as required	Examples include: -Access and Forward-Looking Charges SCR and support actions as needed. - Monitoring progress of code mods raised in 2021 and previous years including QM, User Commitment Issues, CMP328 and CMP298.	Ongoing
B	Tracking GSPs move from Appendix G to new TIA process	No deliverables - Feedback to relevant product as applicable	Tracking of 2-year implementation of the 200 GSPs that will need to move from Appendix G to new TIA process as per CMP298 recommendations that are due in early 2022.	Ongoing
C	Internal advisory for Open Networks	No deliverables - Feedback to relevant product as applicable	This product will also function as an internal advisory for Open Networks to help identify appropriate activities across all workstreams that need to be codified.	Ongoing

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

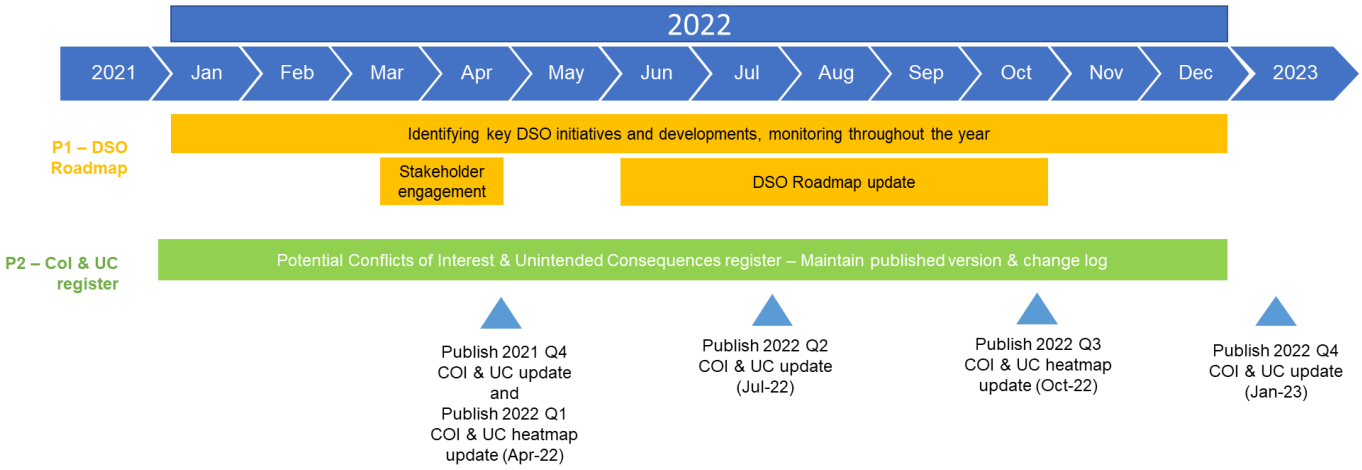
- Serve as a forum for discussion on key DSO related outcomes, including upcoming policy positions, and will consider how the DSO related outcomes are taken forward by the various workstreams in the Open Networks programme.

WS3 Scope for 2022

Summary of 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

A timeline view of these products and their associated activities is set out below:



WS3 Product Details

P1	Distribution System Operation (DSO) Roadmap

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 companies' actions. This allowed stakeholders to see details and progress being made by individual companies on the actions in the DSO Roadmap.

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), and publication of key policy documents from BEIS/Ofgem. The product will feed learnings and/or identified plans of action to other workstreams as applicable. If found relevant this will 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.

Note: Following consultation feedback, we will facilitate further stakeholder engagement on both the DSO roadmap and the COI and UC register to help clarify the intent of this work and to seek input on how we can make this more relevant for stakeholders.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Stakeholder Engagement	Webinar/event – details TBC	Stakeholder engagement on both the DSO roadmap and the COI and UC register to help clarify the intent of this work and to seek input on how we can make this more relevant for stakeholders.	Apr-22
B	Roadmap Update	Updated Roadmap	Provide a consolidation of outcomes from ON as well as input from WS3 members on behalf of their respective companies to provide a view of activities that are being undertaken to progress DSO functionality.	Oct-22
		Updated Roadmap Spreadsheet	Spreadsheet that will allow users to download all underlying data.	

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 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.

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**.**

Note: Following consultation feedback, we will facilitate further stakeholder engagement on both, the DSO roadmap and the COI and UC register to help clarify the intent of this work and to seek input on how we can make this more relevant for stakeholders.

Note: This product is available for review and comment from stakeholders at any time on the ENA website. Whilst there is no public consultation planned for this, we will undertake regular stakeholder engagements and will maintain an open and transparent approach.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	2021 Q4 update	Full register update	Updated Heatmap - reporting progress of existing entries on the register in Q4 of 2021	Apr-22
B	2022 Q1 update	Heat Map update 1	Updated Heatmap - reporting progress of existing entries on the register in Q1 of 2022	Apr-22
C	2022 Q2 update	Full register update 1	Review of all existing entries + new entries (if applicable) on the register in Q2 of 2022	Jul-22
D	Stakeholder engagement event	Webinar/event – details TBC	Stakeholder engagement on both, the DSO roadmap and the COI and UC register to help clarify the intent of this work and to seek input on how we can make this more relevant for stakeholders.	Apr-22
E	2022 Q3 update	Heat Map update 2	Updated Heatmap - reporting progress of existing entries on the register in Q3 of 2022	Oct-22
F	2022 Q4 update	Full register update 2	Review of all existing entries + new entries (if applicable) on the register in Q4 of 2022	Jan-23

WS3 Workstream Activities

WS3 - Workstream activities				
Ref	**Product Element**	**Deliverables**	**Scope/description**	**Expected Completion**
A	Review role and areas of focus for WS3 in 2022 and beyond.	No deliverables	In Q1, WS3 will undertake a review of its role and areas of focus to ensure that they are delivering maximum value for the industry. As part of this WS3 will review and address consultation feedback regarding the DSO transition received via the 2022 scope consultation. Additionally, WS3 will consider any new developments including progress on Ofgem's work on DSO Governance as signposted in the Smart Systems Plan. Key areas of discussion will include: - Ofgem's work on DSO Governance and role of WS3 in informing policy. - Stakeholder feedback on divergence of DSO approach in draft business plans - Accessibility and usability of DSO roadmap and its value to stakeholders (Including DSO Roadmap Analytics) - Views on how to improve stakeholder engagement for the existing WS3 products	Apr-22
B	Monitor policy development on DSO.	No deliverables - Feedback to relevant product as applicable	Monitor, review, and inform policy development on DSO.	Ongoing
C	Monitor relevant innovation projects.	No deliverables - Feedback to relevant product as applicable	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.	Ongoing
D	Scope recommendations for 2023	Scope recommendation (in appropriate template/format)	Recommendation from all product teams and workstream for the areas of work to be considered for 2023 workplan. Early recommendations in Jul to inform proposed high-level scope for 2023 consultation. Further input in Dec to reflect stakeholder feedback and finalise 2023 PID.	Jul-22 & Nov-22

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[5] 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 widening 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.

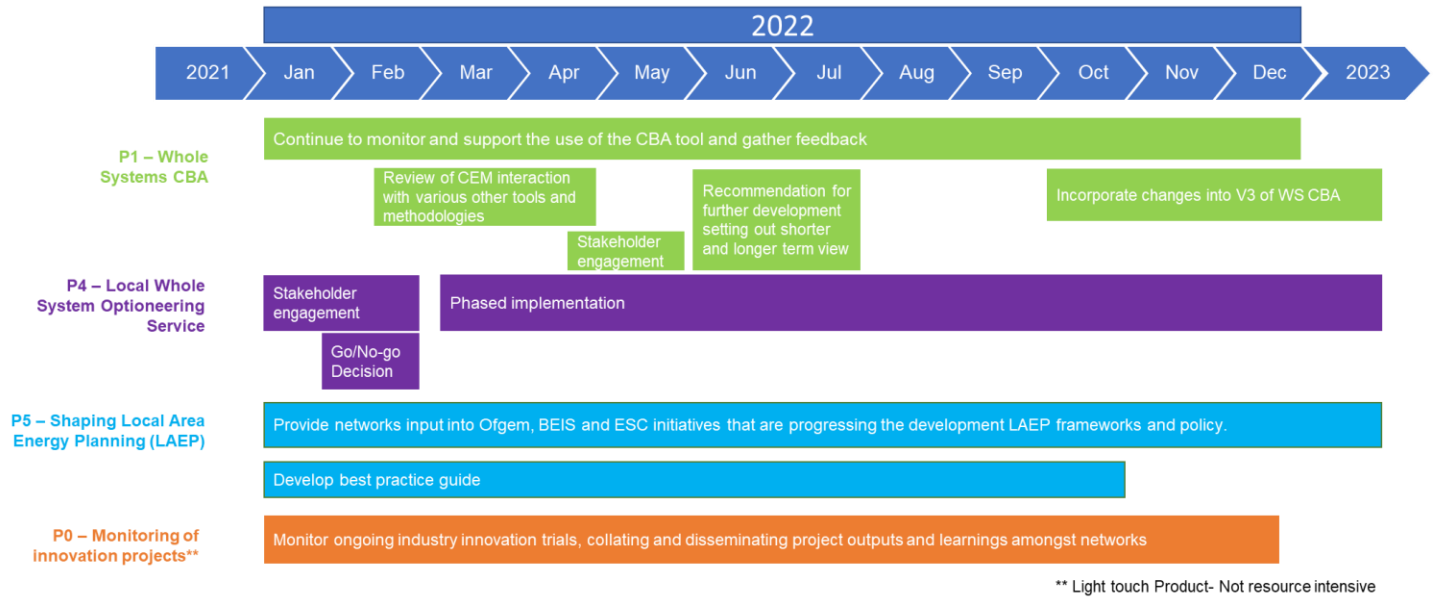
[5] Whole energy system in this context refers to Gas and Electricity vectors

WS4 Scope for 2022

Summary of 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.
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

A timeline view of products and the associated activities identified 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.

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. Additionally, this product will undertake further engagement with stakeholders to clarify how wider costs and impacts are currently factored into this methodology and seek their input on further improving this.

This consolidation will be considered as part of the 2022 review activity and will look to set a timeline for development and implementation.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Ongoing support for CBA implementation	Continued action	Continue to monitor and support the use of the CBA tool and gather feedback.	Ongoing
		Report/slide deck, if applicable	Summary of the input received and learnings from implementation of WS1A CBA engagement. This internal document will feed into the development of the consultation document.	Ongoing
B	Tool interactions	Tool Interactions report (jointly with WS1A P1- CEM)	Paper will seek to clarify the WS1A CBA interaction with various other tools and methodologies (including the WS1A CEM 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.	Apr-22

		Stakeholder engagement	Engage with stakeholders to clarify how the tool incorporates wider costs and impacts and seek input on how this can be refined. This activity has been included in response to feedback received through the consultation.	May-22
C	WS CBA development recommendation	CBA development recommendation	The recommendation follows up from the recommendations developed in past years to flesh out a priority list and justification for the prioritisation.	Jul-22
D	Stakeholder engagement event	Webinar/Other recommended event format	Stakeholder engagement will be planned in consultation with the challenge group.	TBD
E	Further Development of CEM	Ver 3 of CBA (to be continued beyond 2022)	Take onboard stakeholder feedback and initiate the further developments identified for the tool.	Dec-22 and beyond

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 in Feb 2022. Some delays were encountered on this product and as a result the development of an implementation plan has now rolled across into Feb 2022.

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 Feb 2022 for a go/no-go decision by the Open Networks and Gas Goes Green Steering Groups. This will provide a more detailed timeline of further 2022 activities.

This product will look to transfer learnings form 2021 WS4 P3 where in the product 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.

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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Stakeholder engagement	Stakeholder survey Summary of stakeholder engagement findings	Engaging local authorities who were involved in the initial consultation helping to shape the service in 2021 to ensure stakeholder see value in the finalised service offering.	Feb-22
B	Go/no-go decision	Finalised service design recommendation.	Recommendation paper on the finalised service design to the ON and GGG Steering Group for a go/no-go decision.	Feb-22
C	Best practice knowledge transfer	Share learning from 2021 P3 (no separate deliverable envisioned)	Feed in learning form 2021's work on Coordinated gathering of data to develop a best practise guide informing the Optioneering Service (including how data is requested, shared consistently).	Apr-22
D	Phased implementation	Implementation (to be continued beyond 2022)	Phased implementation of Investment planning service – Details TBC following scope proposal to Open Networks Steering Group in Feb-22.	Dec-22 and beyond

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.

BEIS and Ofgem are working together to assess the case for further action to support local area energy mapping and planning, and are considering the most appropriate policy options to take forwards. 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.

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.

This will include key learnings form 2021 WS4 P3 Coordinated Regional Data Gathering where in product engaged in discussions with Local Authorities to identify opportunities for data alignment and to initiated discussions on developing a Local Authority-led approach in the future.

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.

Deliverables for 2022

Ref	Product Element	Deliverables	Scope/description	Expected Completion
A	Provide networks input into external LAEP initiatives.	No specific deliverables in 2022.	Provide networks input into Ofgem, BEIS and ESC initiatives that are progressing the development LAEP frameworks and policy. Input into these projects to help develop best practice and guidance for local area energy planning.	Ongoing
B	Best Practice recommendation	Best Practice Guide	Develop a best practice guide for how Local Authorities should consider gas and electricity networks in their local area energy planning process, and the required interactions. Incorporate learning and best practises from 2021's work on Coordinated gathering of data (needed by electricity and gas companies) to develop a best practise guide from Networks to Local Authorities (in medium and long terms)	Oct-22

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 whole system 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 whole system innovation trails across the industry, deriving greater value from the findings of these trails.

Activity for 2022
This product is not expected to be resource intensive and will be a workstream-led product which will undertake any additional activities that are identified for the workstream.

Deliverables for 2022				
Ref	**Product Element**	**Deliverables**	**Scope/description**	**Expected Completion**
A	Innovation project dissemination	SME presentations	This product will facilitate presentations that are relevant to the work undertaken in the and /or are of interest to WS4 members	Ongoing
		Information log and repository	WS4 will hold a repository of all the external presentations delivered via P0 such that it can be accessed by wider Open Networks and ENA members. The product with support from WS4 will maintain a log of all the P0 activities	Ongoing
B	Scope recommendations for 2023	Scope recommendation (in appropriate template/format)	Recommendation from all product teams and workstream for the areas of work to be considered for 2023 work plan. Early recommendations in Jul to inform proposed high-level scope for 2023 consultation. Further input in Dec to reflect stakeholder feedback and finalise 2023 PID.	Jul-22 & Nov-22

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 this workstream 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 policymakers, 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. We will continue to build on our local authority work – seeking more engagement with the likes of UK100 and the Local Government Association as well as 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.
- 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	In line with Workstream	Energy sector, policymakers

appropriate Open Networks consultations and products	consultations and product timelines	
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

Workstream 5 Key Activities

ENA members

ENA will work with individual member companies to ensure that events are aligned and avoid 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 WS3 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 and 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 (Common Information Model) standard and governance to facilitate data sharing between networks. See Appendix B for further details on the work of this group.

*Actions identified in Smart Systems & Flexibility plan, but not direct actions identified for Open Networks.

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

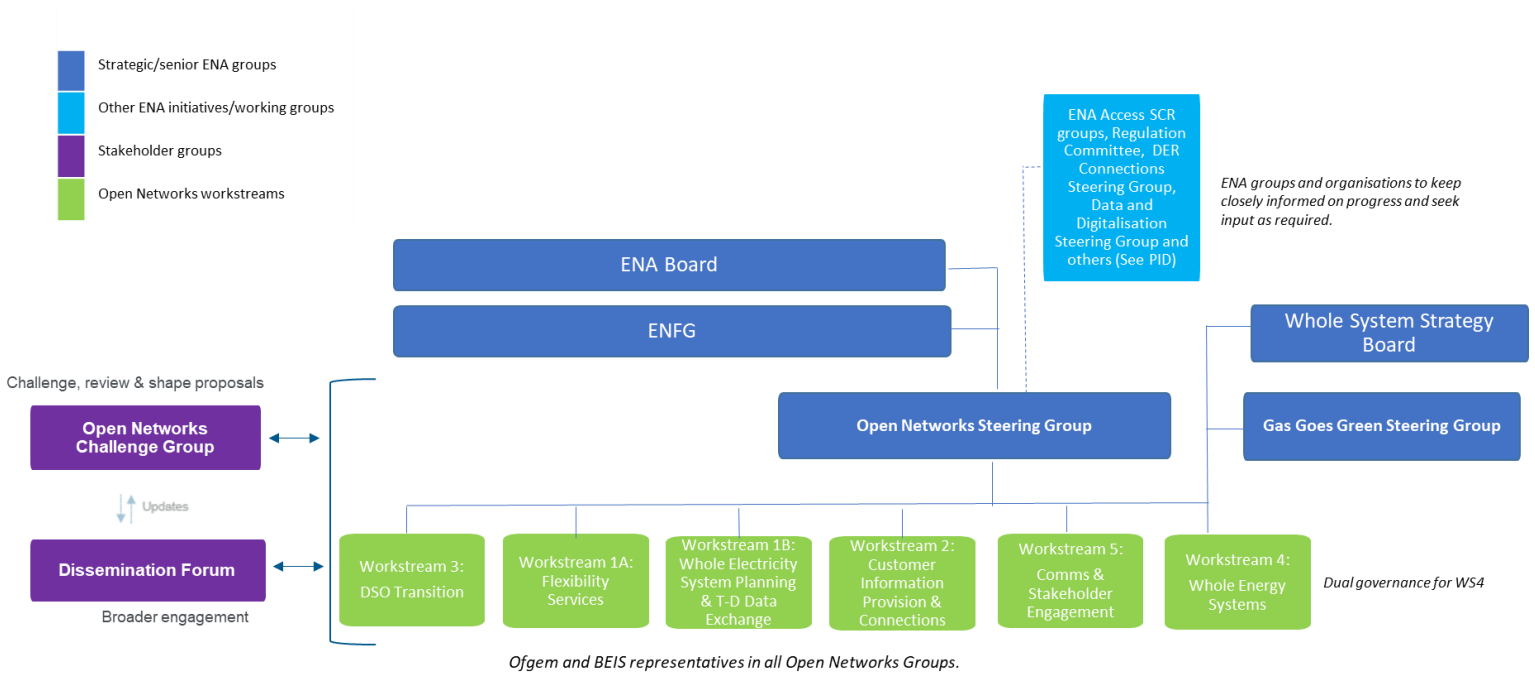
Category	Initiative	Description	Overlap with Open Networks
Data	ENA Data & Digitalisation Steering Group	The ENA Data and Digitalisation Steering Group (DDSG) was commissioned in late 2019 to focus on the digitalisation of electricity and gas network data in line with the Energy Data Task Force (EDTF) 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. https://www.energynetworks.org/info/modernising-energy-data.html	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 P1), Operational Data Sharing (WS1B P6 & P7), sharing of curtailment information (WS1A P8) and others where dependencies are identified.

Low Carbon Technologies	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 (especially WS1A) and the LCT Steering Group will continue to engage to ensure that work across the two initiatives is aligned and that crossovers with work on flexibility and connections are appropriately managed. WS1A P0 will ensure the learnings form the above the LCT group are reflected in the overarching framework
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 Open Networks' 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. Key areas of work that require this close

			interaction are WS1A P3 Dispatch interoperability & Settlement, WS1A P0 Overarching framework for flexibility, and WS2 P1 Embedded Capacity Register. In the past Open Networks 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 (WS1A) will review progress and provide input to ongoing developments.
Regulation, Charging & Access	Regulation Committee	The ON programme will closely liaise with the ENA Electricity Regulation Committee (ERG) to take their input on regulatory issues. We will also continue to provide updates at ERG as needed. The programme will also continue to brief the wider ENA Regulation Committee given the increasingly dual fuel nature of developments, particularly Workstream 4.	

	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.	Open Networks 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.

Appendix C – Governance



ENA Board

The ENA Board is engaged with progress and any issues from the Open Networks programme. Randolph Brazier, Director of Innovation and Electricity Systems at ENA will report to the ENA Board.

Electricity Networks Futures Group (ENFG)

ENFG will be the group that holds the Electricity proportion of the funding for the Open Networks programme but will delegate authority for the spend of that budget and the management and delivery of the programme to the Open Networks Steering Group. Randolph Brazier & Farina Farrier will report to ENFG from ON Steering Group on any of these items. The ENFG is convening monthly before the Steering Groups by teleconference to identify and address any more strategic issues that might apply to the programme.

Whole System Strategy Board (WSSB)

WSSB is a new ENA group that has been setup in 2021 to set the strategy for whole system developments across ENA. WSSB will have a key role in providing strategic oversight to the work of WS4. Randolph Brazier & Farina Farrier will report to WSSB from the Open Networks Steering Group and Thom Koller, Head of Gas will report to WSSB from the Gas Goes Green Steering Group.

Open Networks (ON) Steering Group

The ON Steering Group is the key group with responsibility to direct the delivery of the ON programme to time, cost, and quality. Any deviations to the approved PID will be managed by the Steering Group and escalated to the ENFG and WSSB if further budget likely to be required or there is a significant impact on scope, time, or quality.

All products or deliverables will come to the Steering Group for approval and sign-off. The ON Steering Group will be chaired by an ENA Member representative (Sotiris Georgiopoulos from UKPN at this point of the programme) and supported by the Programme Team as secretariat.

The ON Steering Group will be a small group with a single representative (with alternate) from each operator organisation including Ofgem and BEIS, and the ENA Open Networks Programme Team. Additionally, the Steering Group will also be attended by the Open Networks Challenge Group Chair to provide the link to the Challenge Group.

The Steering Group will meet monthly to formulate the programme and drive progress, allowing the group to set the priorities and scope whilst still maintaining transparency.

The ON Steering Group will assess:

- Priorities and scope through the PID and programme plan with updates.
- Product/deliverable approval.
- Progress against plan.
- Escalated risks and issues.
- Costs against budget.
- Key decisions.
- Previous actions.

The ON Steering Group will represent a united programme perspective from the networks. Single operators may disagree with outputs or direction, but the programme will progress with the majority view. To ensure this, any communication of the outputs of the group will make it clear whether the view expressed is a unanimous or a majority view.

Gas Goes Green (GGG) Steering Group

WS4 will have dual governance and reporting requirements to ensure input and approval on key changes for Gas Distribution Networks that are identified through this workstream. The GGG Steering Group will hold the gas proportion of the budget. Thomas Koller from ENA and Stuart Easterbrook from Cadent will report progress to the ON GGG Steering Group on an ongoing basis.

Open Networks Challenge Group

The Open Networks Challenge Group[6] has been setup to shape the direction of the programme, its priorities and the outcomes that it delivers by providing a more formal challenge function on behalf of the wider industry. The focus of the Challenge Group will be on flexibility related developments, but we will welcome and consider other topics as necessary. See the Terms of Reference for the Challenge Group can be found on the ENA website.

The Challenge Group has been setup through an open call for participation process in Q4 2021 and ongoing membership will be reviewed on an ongoing basis to ensure appropriate representation across the sector. The latest list of members can be found on the ENA website[7]. This group will kick off in Q1 2022 and will meet every 2 months.

The Challenge Group will be chaired by an independent Chair that will also have a seat at the Open Networks Steering Group. The Challenge Group Chair will be supported by secretariat from the Open Networks Programme Team.

Dissemination Forum

The Dissemination Forum has been setup alongside in 2022 for stakeholders wishing to engage more broadly with the programme. This forum will meet quarterly and will be open for anyone to join to enable us to get as broad input as possible. A short form to join the Dissemination Forum can be found on the ENA website[8] here.

Ofgem & BEIS

The ON Programme will continue to work closely with Ofgem and BEIS and we expect that the programme outputs will contribute to future Ofgem and Government considerations on future markets.

Ofgem and BEIS are part of and provide input into the ON Steering Group and to specific workstreams and product teams where this is of particular value. Ofgem and BEIS representatives also attend the Challenge Group as observers. The programme team liaise with Ofgem and BEIS on an ongoing basis to discuss progress and address any issues.

Open Networks Programme Team

A central team at ENA will continue to support the day-to-day delivery of the programme. The Head of Open Networks will report to the ON Steering Group and will manage resources on the programme to ensure delivery to the agreed time, cost, and quality. The Head of Open Networks will be supported by a Junior Project Manager, Project Coordinator, and a Technical Lead. In addition, the programme team will include a Comms Lead to deliver the desired communication and stakeholder engagement.

[6] See Terms of Reference here: https://www.energynetworks.org/industry-hub/resource-library/on21-prj-open-networks-challenge-group-terms-of-reference-(19-oct-2021).pdf
[7] Placeholder to include link to CG membership.
[8] https://forms.office.com/r/AT5yhmFeB0

Workstream Working Groups & Resources

Product teams will be formed from ENA member resources to develop products in the different workstreams in the same way that they were for previous phases of the programme. These product teams will be led by a Product Lead who will have accountability for delivery of their products in line with the scope and timescales set out in the PID. Product Leads will and engage appropriately with the Project Team to provide updates and proactively highlight any delivery risks and issues.

Workstreams will have representation from all member companies and will be responsible for reviewing product development and providing guidance to the product teams. In addition to ENA electricity members, WS4 will continue to have participation from gas members, Energy UK, Energy Systems Catapult, Citizens Advice, and the Association for Decentralised Energy. WS4 will continue to remain open for participation from other energy vectors/cross-industry representatives.

The exception to this will be WS3, where the Workstream meetings will act as a focal point to maintain the Conflict of Interest & Unintended Consequence risk register and direct the delivery of the DSO Implementation. There will be no separate Product Teams under Workstream 3.

We anticipate that each workstream will continue to be chaired by a Steering Group member wherever possible and supported by the Programme team as secretariat. This will help guide development and provide a link to the Steering Group.

For key products in the PID this year, Open Networks will facilitate Focus Group consisting of key industry stakeholders at key development stages for stakeholder to feed into the development of the product. These targeted Focus Groups will be facilitated by the Product Teams.

Note: Based on consultation feedback, Focus Group are being planned instead of User Forums for key 2022 products to facilitate stakeholder input into products as these are less resource intensive for stakeholders. Focus Groups are led and facilitated by Product Teams at key milestones within a product to enable stakeholder input. These are less resource intensive for stakeholder than the previously proposed User Forums that require stakeholders to join a product team and undertake development work alongside the Product Team.

Reporting

Progress Reports will be provided to the Steering Group at every meeting. The reports will include progress on products to time, cost, and associated risks and issues. There will be written reports and decision papers to support any key decision points. All reports will be distributed and controlled by the programme team.

Stakeholder Management

The programme will continue to meet and discuss ON with key stakeholders through various forums including but not limited to the Challenge Group and the Dissemination Forum. The programme will also engage with wider industry including MPs, regulatory, government departments, civil servants, press, gas networks, trade associations, think tanks, charities, generators, suppliers, technology suppliers, aggregators, community groups, local authorities, regional development agencies, manufacturers (e.g. cars, batteries), flexibility service providers, and consumers.

The level of stakeholder engagement for 2022 is expected to be similar to 2021.
We will focus on the following three aspects of engagement:

- Input to and review of our key products and deliverables through the Challenge Group
- Sharing of information and progress updates with the Dissemination Forum
- Ensuring that the wider stakeholder community are engaged with ON Programme developments and have opportunities to engage.

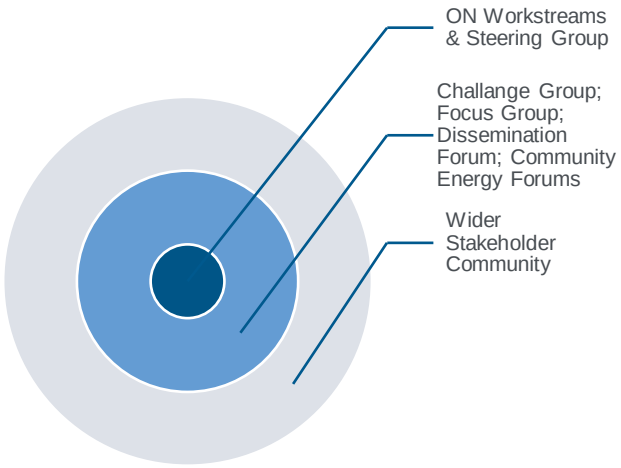
For Workstream products requiring wider review and input, our approach includes:

- Collaborative development with input from the Challenge Group
- Wider consultation on key products including webinars
- A more structured plan for public consultation is included in this PID

In 2022, we will continue to focus on wider stakeholder community engagement. Activities will include:

- Public newsletter
- Speaking opportunities at external events
- Breakfast briefing events
- Panel events
- Webinars
- Participating in other organisation's research
- Speaking and a prominent presence at the ENA stand at the Electricity Networks Innovation Conference (ENIC)
- Community Energy Forums

A calendar of all consultations and planned stakeholder events will be maintained on the ENA Open Networks website and details will be shared with stakeholders as they become available.



Categorisation of Stakeholders to support Engagement Activities

Appendix D – Programme Delivery Approach and Planning

Introduction & Approach

This PID will act as the scoping document for delivery of products in the programme, recognising that we have to be flexible in our approach. We expect that through workstream monitoring activities and through other industry developments, there may be additional areas of work that are identified. We will need to review how we deliver this in light of priorities and available resources at that time.

The ENA Programme Team will maintain a tracker to monitor the delivery of all products and their associated deliverables and will report and agree any changes to the baseline with the Steering Group.

Product Internal and External Dependencies

Continued management of dependencies between products and workstreams will be required and we intend to capture and monitor specific dependencies within the programme where we can.

Programme Closure

We will continue to monitor completion of the products on a month-by-month basis with additional activities and products identified and planned into the following year. We will continue to produce and End of Year Report for each year of the programme.

Change Control

Change to scope, time, or cost

Where any deviations from the baselined scope, time, or cost are identified, the Programme Team will assess this further to understand the impact, identify options for resolution/mitigation and will seek agreement from the Steering Group on changes. Revised baselines to time and scope will be documented in the product tracker.

Risks and Issues

Potential risks and issues will be identified through close monitoring of products development and added to an ongoing register that is kept up to date throughout the life of the programme.

Appendix E – Summary of Products and Deliverables

Below is a table summarising all of the products and deliverables described in the PID above for easy reference.

WS	Ref	Product element	Deliverables	Baseline
Project		**Project Deliverables**		
		High-level 2023 PID		Q3-22
		2023 PID consultation period		Q3-22
		Summary of 2023 PID consultation, next steps & revised PID		Q4-22
		Finalised 2023 PID		Q4-22
WS1A		**WS1A 2022 Consultation**		
		Flex Consultation document		Jul-22
		WS1A Public consultation period		Aug - Sep 22
		Summary of consultation & next steps		Nov-22
		P1 Common Evaluation Methodology		
	A	Stakeholder engagement	Collated inputs/feedback from engagement (report/slide deck)	Jan-22
	B1	CEM Consultation documents	Consultation document and associated deliverables	Feb-22

	B2	CEM stakeholder consultation		Mar-22
	C	CEM interactions	CEM interactions report and opportunities for alignment	Apr-22
	D	Recommendation for further development	Recommendation for further development	Jul-22
	E	Further Development of CEM	Ver 3 of CEM	Dec-22 and beyond
		P2 Procurement Processes		
	A	Real time procurement	Recommended steps to move to real time procurement	Mar-22
	B	Real time procurement	Detailed implementation plan to progress short-medium term actions for real time flexibility	Nov-22
	C	Alignment of pre-qualification	Pre-qualification standardisation recommendation	Jul-22
	D	Alignment of pre-qualification	Detailed implementation plan to align pre-qualification	Dec-22
		P3 Dispatch Interoperability and Settlement		
	A1	Scope definition	Scope document	Feb-22
	B1	Dispatch	Review of existing practices and gap analysis	Apr-22
	B2	Dispatch	Recommendations for alignment (Appended to report above)	Jun-22
	B3	Dispatch	Implementation plan to progress short-medium term actions.	Dec-22
	C1	Settlement	Review of existing practices and gap analysis	Sep-22
	C2	Settlement	Recommendations for alignment	Dec-22
		P4 Standard Agreement- Alignment of Contract for DNO/ESO services		
	A	Contracting processes	Gap analysis and recommendations for alignment on contracting processes	Mar-22
	B	Format of schedules	Recommendation to standardise format of contract schedules	Jul-22
	C	Format of documentation	Recommendation to standardise format of supporting documentation	Nov-22
	D	Recommendation to standardise format of supporting documentation	Ver 3 of Std Agreement (to be continued to 2023)	Dec-22 and beyond

	P5 Primacy Rules for Service Conflicts		
A	Develop draft Primacy Rules & the processes and information sharing needed to support them	"Draft Primacy Rules" Report – Iteration 1 ("Draft Primacy Rules" Report – Iteration 2)	Mar-22
B	Implement designed processes and information flows	N/A, initiate discussions as required	Jun-22
C	Test the rules	N/A, initiate discussions as required	Sep-22
D1	Review the rules and processes and establish roll out process	Report setting out trial learnings, outcomes and roll out process – Iteration 1	Nov-22 for iteration 1
D2	Review the rules and processes and establish roll out process	Report setting out trial learnings, outcomes and roll out process – Iteration 2	May-23 for iteration 2
E1	Publish Primacy Rules, proposed review periods and target date for roll-out at scale	V1.0 of Primacy Rules based pm iteration 1	Jan-23, following iteration 1
E2	Publish Primacy Rules, proposed review periods and target date for roll-out at scale	V1.1 of Primacy Rules based on iteration 2	Jul-23, following iteration 2
F	Governance	Primacy Rules governance approach	Mar-23
	P6 Flexibility Products		
A	Flexibility product catalogue	Flexibility product catalogue	Feb-22
B	Stackability review	Stackability report	Mar-22
C	Review of active power products and updates	Active power products review report. Updated active power product definition	Jul-22
D1	Review of reactive power and other developments	Review summary (slides)	Sep-22
D2	Review of reactive power and other developments	Implementation plan	Dec-22
	P7 Carbon Reporting		
A	Scope definition	Scope document	Feb-22
B	Review of carbon reporting methodologies	Report on existing carbon methodologies	Apr-22
C	Development of methodology	Carbon reporting and forecasting methodology	Jul-22
D	Review and update	Updated consolidated report based on feedback from consultation.	Nov-22

		P8 ANM – Curtailment Information		
	A	Improvements to pre-application information	Recommendation (slides)	Feb-22
	B	Implementation stage 1	Publish profiles	Mar-22
	C	Improvements to pre-application information	Common methodology for providing curtailment estimates	Jul-22
	D	Consistency of data	Common approach to sharing information	Oct-22
	E	Improvements to flexible connection offer information	- Best practice for providing connection offer information - Publish LIFO stack information - Guidance document on standard assumptions	Nov-22
	F	Implementation stage 2	Flexible connection curtailment report	Dec-22 and beyond
		P0 Overarching Common Framework for Flexibility		
	A	Scope definition	Scope document	Feb-22
	B1	Common framework for flexibility	Draft common framework for flexibility	Jul-22
	B2	Common framework for flexibility	Updated common framework	Dec-22
	C1	Strategic flexibility roadmap	Draft strategic roadmap	Jul-22
	C2	Strategic flexibility roadmap	Updated strategic roadmap	Dec-22
	D	Consolidated flexibility procurement reporting to show size of markets in UK.	To be defined	TBC
WS1B		**P2 Further alignment between FES and DFES**		
	A	Alignment of GSP definition	Consistent T-D interface naming and definition	Mar-22
	B1	Review of FES & DFES building blocks	Paper explaining purpose of various energy scenarios	Apr-22
	B2	Review of FES & DFES building blocks	Paper defining alignment requirements and justification	Apr-22
	B3	Review of FES & DFES building blocks	Updated FES & DFES building blocks	Jun-22
	C	Stakeholder engagement	Stakeholder engagement sessions/webinar	Jun-22
	D	Best Practice recommendation	Report showing recommendations for forecasting outputs used in NDP	Oct-22

		P5 Network Development Plans		
	A	Pre-publication Debrief	Collated feedback (not for external publication)	Mar-22
	B	Stakeholder engagement	Stakeholder engagement sessions/webinars	Jun-22
	C	Joint workshop with WS1B P2	No deliverable envisioned	TBD
	D	Future recommendations	Updated Template/FoS and recommendation	Nov-22
		P6 DER Visibility and Data sharing		
	A	CBA (rolled over from 2021)	CBA+ updated report	Feb-22
	B	Regulator Workshop	Joint workshop with Ofgem	Mar-22
	C	Data sharing Gap analysis	RAG analysis Spreadsheet+ DNO gap analysis	Jul-22
	D	Data Sharing mechanisms	Evaluation report and Recommendation	Oct-22
	E	Implementation Plan	Implementation Plan	Dec-22 and beyond
		P7 Operational Data Sharing		
	A	Review all existing data sets	Review of existing data sets that are shared between various parties	Feb-22
	B	Implementation stage 1	Implementation stage 1	Mar-22
	C	Data sharing gap analysis	RAG analysis Spreadsheet+ DNO gap analysis	Jun-22
	D	Data Sharing mechanisms	Recommendations for data sharing (incl. appropriate mechanisms)	Oct-22
	E	Implementation stage 2	Implementation stage 2	Oct-22
	F	2021 Implementation Plan	Data sharing framework	Dec-22 and beyond
		P9 Whole electricity system co-ordination register		-
	A	Internal stakeholder engagement	Updated Template/FoS	Jan-22
	B	Pre-publication Debrief	Collated feedback (not for publication)	Mar-22
	C	External stakeholder engagement	Stakeholder sessions/webinars	Jun-22
	D	Governance meeting	Updated Template/FoS	Nov-21
WS2		**P1 Embedded Capacity Register**		
	A	ECR digitalisation design recommendation	Design recommendation proposal	Jan-22
	B	Code modification	Revised DCUSA mod	Feb-22

	C	Publication of new ECR Version	Updated ECR	Mar-22
	D	ECR digitalisation implementation (decentralised-Phase-1)	1) Agree on a standardised machine-readable format for the ECR 2) Agree on the API architecture required to push ECR data.	Jul-22
	E	Data updates	Updated ECR	Ongoing
	F	ECR digitalisation implementation (decentralised-Phase-2)	Combined Testing report	Ongoing
		P2 Queue Management		
	A	Monitor progress of CUSC modification CMP376	N/A	Ongoing
	B	Review of implementation	N/A	Ongoing
	C	Monitoring promotion of flexible connections	Paper outlining promotion of flexible resources and any recommendations for further work under ON in 2023	Jul-22
	D1	Monitoring of QM implementation	Approach for monitoring	Mar-22
	D2	Monitoring of QM implementation	End of year report	Dec-22
		P3 Interactivity		
	A	Review of outcomes of CMP328	Updated User Guide (v2)	Mar-22
	B	Review of outcomes of Ofgem's SCR decision.	Draft updates to User Guide reflecting new SCR principles	Dec-22
	C	Review of outcomes of DCP392.	Updated User Guide with reference to DCP392 outcome as appropriate	Dec-22
	D	Implement any recommendations from review phase	Updated User Guide (v3)	Dec-22 and beyond
		P0 Overarching code review		
	A	Monitor and support implementation	No deliverables – provide recommendations as required	Ongoing
	B	Tracking GSPs move from Appendix G to new TIA process	No deliverables - Feedback to relevant product as applicable	Ongoing
	C	Internal advisory for Open Networks	No deliverables - Feedback to relevant product as applicable	Ongoing
WS3		**P1 Distribution System Operation (DSO) Roadmap**		

	A	Stakeholder Engagement	Webinar/event – details TBC	Apr-22
	B	Roadmap Update	Updated Roadmap Updated Roadmap Spreadsheet	Oct-22
		P2 CoI & UC Register (Conflicts of Interest and Unintended Consequences)		
	A	2021 Q4 update	Full register update	Apr-22
	B	2022 Q1 update	Heat Map update 1	Apr-22
	C	2022 Q2 update	Full register update 1	Jul-22
	D	Stakeholder engagement event	Webinar/event – details TBC	Apr-22
	E	2022 Q3 update	Heat Map update 2	Oct-22
	F	2022 Q4 update	Full register update 2	Jan-23
WS4		**P1 Whole System CBA**		
	A	Ongoing support for CBA implementation	Continued action Report/slide deck, if applicable	Ongoing
	B1	Tool interactions	Tool Interactions report (jointly with WS1A P1-CEM)	Apr-22
	B2	Tool interactions	Stakeholder engagement	May-22
	C	WS CBA development recommendation	CBA development recommendation	Jul-22
	D	Stakeholder engagement event	Webinar/ Other recommended event format	TBD
	E	Further Development of CEM	Ver 3 of CBA (to be continued beyond 2022)	Dec-22 and beyond
		P4 Local whole system optioneering service		
	A	Stakeholder engagement	- Stakeholder survey - Summary of stakeholder engagement findings	Feb-22
	B	Go/no-go decision	Finalised service design recommendation.	Feb-22
	C	Best practice knowledge transfer	Share learning from 2021 P3 (no separate deliverable envisioned)	Apr-22
	D	Phased implementation	Implementation (to be continued beyond 2022)	Dec-22 and beyond
		P5 Shaping Local Area Energy Planning (LAEP)		
	A	Provide networks input into external LAEP initiatives.	No specific deliverables in 2022.	Ongoing

	B	Best Practice recommendation	Best Practice Guide	Oct-22
		P0 Monitoring of innovation projects		
	A	Innovation project dissemination	- SME presentations - Information log and repository	Ongoing
	B	Scope recommendations for 2023	Scope recommendation (in appropriate template/format)	Jul-22 & Nov-22

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