Open Networks Project

2021 Project Initiation Document

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DOCUMENT CONTROL

Authorities

Version	Issue Date	Authorisation	Comments
1.0	11 Dec 2020	Steering Group	
4.0	20 May 2021	Steering Group	

Related documents

Reference 1	2020 End of Year Report
Reference 2	Flexibility Roadmap

Change history

Version	Change reference	Description
0.1		First draft for internal review from constituent Workstream scoping activities and introduction updates
3		Final draft for review
3.2		WS2 wording changes suggested by workstream Changes proposed by Steering Group reps Minor updates to align diagrams and tables.
4.0		Updated to reflect changes incorporated in response to 2021 PID Consultation. Timelines updated to reflect changes during Q1 2021.

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Executive Summary

This Project Initiation Document sets out the plan of work for the Open Networks (ON) Project for 2021 as it has been approved at the end of 2020. The Open Networks Project needs to be adaptable to react to new priorities and external dependencies through the year and we will continue to adopt an adaptable approach so that we can react to change and agree any changes through our Steering Group, which includes representatives from all of ENA's electricity network members as well as Ofgem and BEIS.

ENA's Open Networks Project is key to enabling the delivery of Net Zero by:

a) opening local flexibility markets to demand response, renewable energy and new low-carbon technology and removing barriers to participation
b) providing opportunities for these flexible resources to connect to our networks faster
c) opening data to allow these flexible resources to identify the best locations to invest
d) delivering efficiencies between the network companies to plan and operate secure efficient networks

Our work has evolved significantly over the last few years, moving from definition to implementation in the areas we started early and starting development in new areas which were not a priority when we started. The largest area of work in 2021 is Flexibility (Workstream 1A) where we are focusing our efforts to open markets for local flexibility and standardise and improve the experience for customers across DNOs and with the ESO.

In light of upcoming RIIO-2 activities for network companies (development of business plans for DNOs and review of Final Decision for TOs, ESO and GDNs), we have sought to prioritise our work to ensure that we can deliver this body of work with the available resources. The Steering Group will continue to support this approach by providing guidance on the direction of the project.

The areas of work outlined in this document have been identified on the basis of work done to date, stakeholder feedback provided to us through consultations, Advisory Group session as well as key priority areas highlighted by Ofgem and BEIS to us. In addition to scope, this document also outlines the governance processes for delivery.

The governance and structure for the programme has remained largely as is, with a change to formalise joint governance and funding for our Whole Energy Systems Workstream 4 between the Open Networks Project and the Gas Goes Green Project.

Engagement with Ofgem, BEIS and stakeholders will continue to remain important to deliver against our objectives and to ensure consistency of our developments with regulatory and policy development. This includes engagement with community energy representatives and Citizens Advice to represent consumers and ensure no-one is left behind.

For the first time, we are also publishing a Flexibility Roadmap alongside this PID which links our development work to our Flexibility Commitments and Next Steps for Implementation as well as a consolidated list of key stakeholder issues that have been raised through our flexibility consultation and interactions with stakeholders. This roadmap also provides a forward looking view of work beyond 2021 and also signposts key industry developments that are feeding into our work. This gives us and stakeholders confidence that our work is focused on the right priorities.

This PID does not look back on the achievements of 2020, this is described in the 2020 End of Year Report, but it does build on development work done to date, either by making further improvements or by moving from written outputs to implementation of change.

The Open Networks Project has the commitment of the Business Leaders within the network companies to deliver on its stated objectives with this work plan.

Introduction

About ENA

Energy Networks Association (ENA) represents the owners and operators of licenses 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:

a) Regulation and the wider representation in UK, Ireland and the rest of Europe
b) Cost-efficient engineering services and related businesses for the benefit of members
c) Safety, health and environment across the gas and electricity industries
d) The development and deployment of smart technology
e) 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.

Figure 1 ENA Member Companies

Purpose of this Project Initiation Document

This Project Initiation Document (PID) outlines what the Open Networks Project will deliver in 2021, how it will be delivered and when. It is a best view at this point and it has been consulted on in Q1 2021 to understand stakeholder priorities. We have published an updated version of the PID to reflect stakeholder feedback and have also reflected further details on scope and timelines where they are available.

Background to Open Networks Project

Launched in January 2017, ENA's Open Networks Project is laying the foundations of a smart, flexible energy system in GB. Through the work over the years, the project has introduced real momentum into the transition to Distribution System Operation and has set out a clear least pathway and the actions required to deliver it.

Open Networks is playing a pivotal role in helping to support the move towards Net Zero. We will 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.

In addition, as the UK recovers from the COVID-19 pandemic, the work of Open Networks will support the green economic recovery by helping to harness the power of local flexibility to support decarbonisation plans.

Stakeholder engagement is at the heart of the Open Networks Project, collaborating with the entire industry – from BEIS and Ofgem to community local groups. Open Networks will continue to maintain an inclusive and transparent approach by working with industry and making available all outputs from the project available.

The project is delivering change at pace, driving key areas for convergence and standardisation, providing better visibility of data, and working across whole systems to build an energy system that leaves nobody behind. The project will continue to maintain an implementation focus and through the project governance, the network companies are committed to deliver our outcomes. We will continue to provide visibility to industry on how these outcomes are being implemented by individual network companies through our DSO Implementation Plan.

The historical achievements of the project can be seen in our End of Year Reports available in ENA's Resource Library.

Programme Objectives

We have reviewed the objectives of the overall Open Networks Project from previous years and they remain sound. We have added key objectives for the project's adaptability and to reflect the ongoing support to Net Zero:

a) Share information and work collaboratively across network operators, with Ofgem, BEIS and other stakeholders to progress the transition to DSO and improve outcomes for customers, including vulnerable customers (avoiding distributional impacts where possible).
b) Maintain a leading position for network operators in the development of Open Networks.
c) Ensure that the customer is kept at the centre of any process development to ensure that their experience can be improved, we allow connecting customers to realise value from their technology and that our outputs deliver lower cost outcomes for all consumers and society, including vulnerable customers.
d) Bring consistency in approaches across networks (DNO – DNO and DNO – TO and ESO) through existing and new processes to support the transition to DSO, facilitate development of flexibility markets, support interactions with each other and interactions with customers.
e) Enable data visibility and better access to non-confidential data across transmission and distribution and for customers.
f) Work with stakeholders to ensure that any potential and/or perceived conflicts of interest are proactively identified, and appropriate measures are put in place to address them appropriately.
g) Take a whole electricity system approach to ensure that the value across the wider system is considered and widen this to consider a whole energy system approach.
h) Inform the regulatory debate around funding (including ED2).

i) Support facilitation and development of flexibility markets through removing barriers to participation, simplifying participation through standardisation and improving market confidence through more transparency.
j) Be adaptable to be able to react to market changes and prioritise our work accordingly.
k) Continue to prioritise outputs that facilitate the progress to Net Zero.

These overall objectives underpin how we approach the development work in Open Networks and then we have further targeted objectives for each workstream.

We expect that the objectives will remain for future Open Networks development work, e.g. the standardisation of flexibility products, services and procurement processes will continue.

We are working with industry to deliver change at a pace that achieves meaningful short-term improvements for customers and also agreement on how markets should operate in the longer term.

Transparency

We are taking the approach of being open and transparent with the development work under Open Networks and progress of implementation of these outcomes by network companies. All of our products and output are published on the ENA website[1]. We recognise that it is essential to hold ourselves to account for the delivery of the outcomes and will provide visibility of implementation of these outcomes through the DSO Implementation Plan.

[1] https://www.energynetworks.org/creating-tomorrows-networks/open-networks

Project Scope, Workstreams & Dependencies

In Scope

ENA is responsible for leading the Open Networks Project in 2021 in collaboration with UK and Ireland's network operators and owners, government departments the energy regulator and many interested parties and stakeholders.

A number of areas have been considered in the development of the scope for this year. We will continue to engage with stakeholders and take an agile approach to ensure that what we deliver is fit for purpose, taking account of emerging developments and stakeholder needs.

Key drivers for our development work remain:

1. Proactive Network Operator developments to deliver DSO Transition, flexibility markets and benefits for customers
2. Policy driven outcomes from Government, BEIS and Ofgem

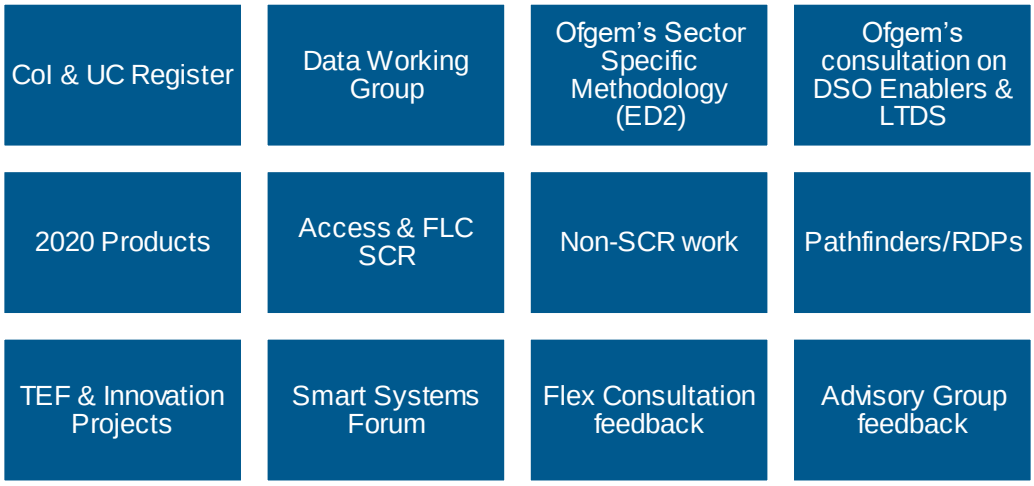

Figure 2 Key Drivers for Project Scope

Through our work, we will ensure that the findings are distilled into the RIIO2 business planning process and any gaps are identified and addressed appropriately though the scope of the project.

We will continue to engage with the Transition, Electricity Flexibility and Forecasting System and Fusion (TEF) projects to ensure mutual sharing of learning and developments, as well as identify other key trials (for example the RecorDER NIA project).

We will continue to deliver work through our 6 workstreams which are defined in more detail in the associated sections of this PID and workstream scoping documents. These define the outcomes and products for each workstream.

Key Priorities

In the development of the workplan for 2021, we have identified a small number of products which are of particular importance to networks, Ofgem, BEIS and stakeholders. We are going to take particular efforts to ensure the delivery of these products and report the progress of these products to the ENFG at the level above our Steering Group to ensure focus. They are:

- Common Evaluation Methodology (WS1A P1)

- Common Contract and particularly v2 which consolidates ESO general Terms & Conditions and the DSO services common contract (WS1A P4)
- Products addressing stakeholder concerns around the interaction of ANM and flexibility. (WS1A P3, P6, P8 and P9).

Workstream Definitions

We will continue to retain the workstream structure from last year as there is still development work in all of these areas and this ensures continuity. The below diagram reflects this.

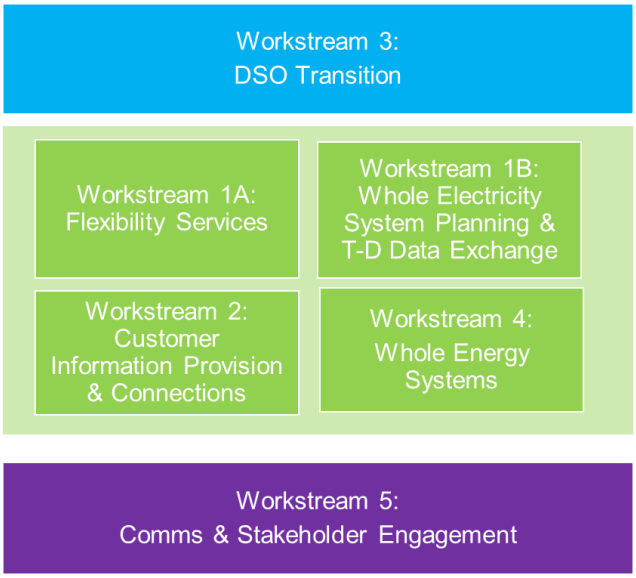

Figure 3 Open Networks Workstreams

- **Workstream 1A – Flexibility Services** will continue work to define and develop transparency and standardised approaches across DNOs in their procurement of flexibility services, as well as delivering consistency with the ESO. We will continue to design changes to enable and encourage new markets and platforms for flexibility (e.g. peer-to-peer trading).
- **Workstream 1B – Whole Electricity System Planning & T-D Data Exchange** will monitor industry developments to maintain processes on investment planning, FES and data exchange that were delivered in 2020. In addition, this workstream will support new areas of work on visibility of DER on the networks and will also support new licence requirements to make planning and operational data available to non-network stakeholders.
- **Workstream 2 – Customer Information Provision & Connections** will roll out queue management and interactivity processes developed in 2020 and will continue to support and ensure the implementation of the Embedded Capacity Register and future enhancements. In addition, this workstream will undertake a review of connection agreements with a focus on curtailment rights and obligations and will also kick off work to review the user commitment methodology to ensure that it does not disadvantage smaller connectees.
- **Workstream 4 – Whole Energy System** will take forward recommendations from 2020 to optimise existing investment planning processes and data gathering processes. WS4 will take forward further developments on the Whole System CBA model. Additionally, WS4 will undertake a scoping activity to explore how Electricity and Gas networks can support local area energy planning.

Workstream 3 – DSO Transition will monitor and coordinate DSO developments across ON and the industry. WS3 will provide transparency on DSO implementation activities through the DSO Implementation Plan and particularly at an individual DNO level from Q3 2021. Workstream 3 will continue to drive and inform DSO related actions and outcomes across other areas of Open Networks and industry and will ensure progress to mitigate risks of Unintended Consequences and Conflicts of Interest.

Workstream 5 – Communications and Stakeholder Engagement will continue to promote stakeholder engagement and communications for the Open Networks Project.

Flexibility Roadmap

Alongside our 2021 PID, we have also published a complementary Flexibility Roadmap that provides a broader view of work that we have and are planning to deliver over the years under Open Networks.

It has been progressed in discussion with BEIS and Ofgem to demonstrate the traceability of our development work to our Flexibility Commitments and Next Steps for Implementation[2] as well as a consolidated list of key stakeholder issues that have been raised through our flexibility consultation and interactions with stakeholders.

This roadmap also provides a forward looking view of work beyond 2021 and also signposts key industry developments that are feeding into our work. We will update the Flexibility Roadmap during 2021.

Out of Scope

We considered further development of GB wide reporting on flexibility figures as part of Workstream 1A, but it was noted that Ofgem are initiating a package of work to define flexibility procurement reporting requirements for individual DNOs as part of embedding the Clean Energy Package requirements into licence conditions. Network Operators will participate in this initiative and this will set the framework for flexibility reporting. ENA will consolidate reporting across DNOs and the ESO, as described in the Workstream 1A section below, but not duplicate the development work being undertaken by Ofgem.

The Ofgem Charging Review and particularly the Access and Forward Looking Charges Significant Code Review is a key dependency for Open Networks (e.g. to development work on the interaction between flexible connections and flexibility markets), but we will not duplicate development work in parallel with the Charging Review – we will take its outputs.

The development of industry Code changes are important in implementing change from Open Networks, but it is important that we do not duplicate the work of Code Working Groups. We will ensure that we have the right representation on the groups and monitor the implementation of change, but not undertake solution analysis.

We have identified that individual DNO or ESO initiatives as well as industry trials may support this work and will inform this work but are unlikely to fall within the scope of this project.

The Open Networks project will continue to take a technology neutral approach and will not be undertaking development of technology specific processes to address issues for technologies such as EVs, heat pumps and storage.

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2 https://www.energynetworks.org/assets/images/Resource%20library/ENA%20Flexibility%20Commitment%20Our%20Six%20Steps%20for%20Delivering%20Flexibility%20Services%202019.pdf

Behind the meter activities are generally not included in the scope of network processes. Open Networks will continue to facilitate markets for services including those that may be driven from behind the meter activity (e.g. domestic generation for aggregation).

External Dependencies and Interfaces

There are key external dependencies on the Out of Scope items above:

- Ofgem Flexibility Reporting initiative
- Charging Review and particularly the Access and Forward Looking Charges Significant Code Review
- Industry Code Change implementation

The Energy White Paper is a key driver for policy and development and gives the industry greater clarity on the pathway for UK's decarbonisation. Through our work in Open Networks, we will continue to support the development of local flexibility markets to enable the best use of available capacity, help renewable technologies connect to the network faster and make sure that in leading the transition to a smart grid, we are not leaving anyone behind. Open Networks continues to work with ENA initiatives such as ENA's Gas Goes Green project[3] that is looking at the decarbonisation of gas to support a whole system approach to net zero and the Green Recovery initiative[4] in conjunction with Ofgem and Government that is making £300M of green investment available for low carbon projects.

Ofgem and BEIS are developing the Smart Systems and Flexibility Plan. As part of this work, the government is looking at approaches to carbon monitoring and pricing across the industry. This will be a key input into any changes made to the CEM and tool that relate to carbon value and there may be more general actions from the Smart Systems and Flexibility Plan that fall onto Open Networks that we will need to prioritise, resulting in existing work being de-prioritised.

There are a number of further industry initiatives, trials and developing policy areas that ON will need to continue to interface with at a project and a product level. Our best view of the key dependencies at a project level are noted in Appendix A.

There are further dependencies at a product level that the product teams will manage as part of their development work.

Monitoring Activities

We have identified a number of activities to monitor key industry developments within the Workstreams. These are not products with defined outcomes but we need to ensure that these key activities are captured in order to deliver on our overall outcomes.

Risks and Issues

Risks and Issues are managed by the Open Networks Steering Group as part of the monthly reporting and review and we have undertaken a risk review in advance of publication of the PID. The top risks identified at this point are:

- Resourcing – Open Networks is dependent on expert resource released from the network companies to develop our output and products. This expert resource is in demand (e.g. for RIIO2 Business Plans, determinations, network company specific activities and analysis).
- Stakeholder Engagement Fatigue – There is a lot of activity across all of industry calling for stakeholder input (business planning, consultations, policy papers, working groups) so we need to ensure that we consolidate and focus stakeholder engagement to ensure we get the most out of it. Network Operators and Open Networks should look to coordinate activities with each other as much as possible.

[3] https://www.energynetworks.org/creating-tomorrows-networks/gas-goes-green
[4] https://www.energynetworks.org/greenrecovery

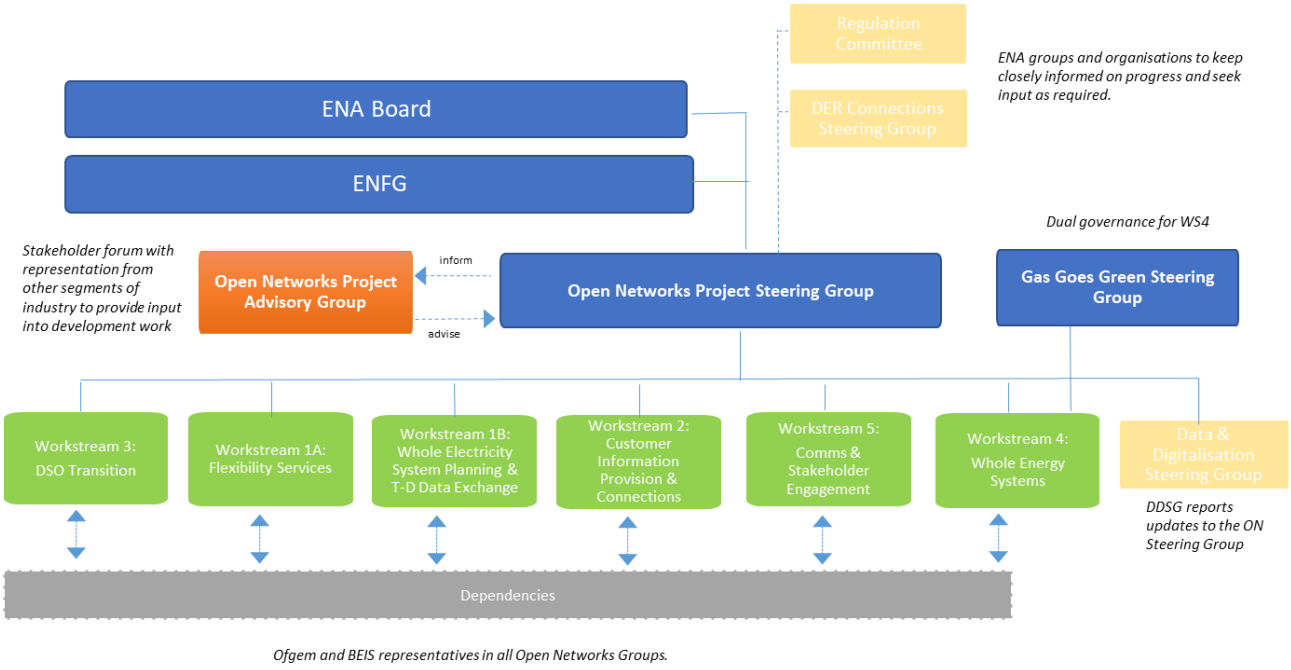
- Remote working - Less face to face interaction as a result of COVD-19 may impact the quality of input that we get into the project.
- External policy changes Open Networks priorities & content – The Smart Systems and Flexibility Plan and other key policy positions will require time and resource to review and may impact planned work for ON.

Project Structure & Governance

Project Governance

The project governance structure is set out in Appendix B and can be summarised in the diagram below.

A key change for 2021 is joint governance of WS4 with the Gas Goes Green project to ensure greater alignment of objectives.



Delivery Approach and Planning

We have included the project delivery approach in Appendix C which is consistent with previous years.

All of the project deliverables are summarised in a table in Appendix D.

Products for Public Consultation

Description		Launch Timing
Overall Project		
Workplan & Prioritisation for 2021		Jan 21
Workstreams		
WS1A	Consultation on all Flexibility outputs up to Jul 21	Jul 21
WS1A	Consultation on v2 of the common contract that is aligning general terms across DNO and ESO contracts.	Aug 21

We are conscious of not overloading stakeholders with too many consultations from Open Networks amongst many other industry initiatives and are proposing three public consultations in 2021 in addition to more targeted stakeholder engagement on products. The general steer from stakeholders has been to not have more than one consultation per quarter and try to avoid busy times of the year (unfortunately Jan/Feb for the workplan is unavoidable). For other products that have been identified as high priority, we give stakeholders the opportunity to provide input through other proposed engagement channels such as the Advisory Group, development workshops, webinars and surveys. In addition, we welcome feedback from stakeholders on all of our work through opennetworks@energynetworks.org. We publish all events[5] on the ENA website to give stakeholders visibility of all planned events.

As part of WS1A this year, we are planning focus groups and workshops with wider industry to progress product development (e.g. to progress the interaction between ANM and flexibility markets). These more targeted stakeholder engagement activities are not included in the table above. In the current COVID-19 situation, these workshops will be held remotely. We will continue to plan further workshops for other workstream as well and will publicise them on our events page.

We will plan a webinar in Q3 2020 to share a progress update on WS1B and give the industry the opportunity to ask any questions or provide input. This webinar will also be advertised on our events page.

[5] https://www.energynetworks.org/events/

Project Deliverables

Approach to ongoing Product Governance

Since 2017, ON has developed a number of deliverables ranging from good practice guides and processes to detailed methodologies and models. Some of the models that have been developed under ON will require ongoing open governance and change management. Additionally, over time, good practice guides and processes developed under ON over the years may require further changes based on new industry developments. Product teams that originally undertook the development work may no longer be available or have the capacity to update the required changes into deliverables.

There is a need to consider an enduring change management approach for all these deliverables as part of BAU arrangements.

In addition to change management of existing deliverables, there is a need to consider more collaborative approaches to undertaking development work. We will consider how we can adopt a collaborative and inclusive approach in 2021.

The below product is proposed for the ENA project team to lead to address the above and this will need a wider review within the ENA ENFG structure and associated working groups (including the Systems Team) to consider how this enduring governance for ON deliverables fits in.

Open Governance

Description

This product will identify approaches to ongoing governance and change management of Open Networks deliverables. This product will also consider governance approaches that enable more collaborative development with stakeholders.

Example key deliverables for active open govemance

- 2020 & 2021 WS1A P1 Common Evaluation Methodology and Tool
- 2020 & 2021 WS1A P4 Common Contract
- 2021 WS1A P7 Baseline Methodologies - Verification Tool
- 2020 WS1B P1 Investment Planning Engineering Recommendation (EREP)
- WS3 P3 Potential Conflicts of Interest & Unintended Consequences register
- 2020 & 2021 WS4 P1 Whole System CBA Framework

As part of the scoping process for 2022, deliverables that require open governance will be identified and noted in the PID.

We will consider what arrangements are required for historical good practice guides and project deliverables.

Ref	Activities	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Develop short term approach for collaborative development of key ON deliverables in 2021.	Jan – Jun 21	Paper outlining approach (Mar 21) Process to setup arrangements and Terms of Reference (Jun 21)	Advisory Group	ON Steering Group ENFG

B	Internal review at ENA and wider industry review to review existing approaches for enduring governance	Feb – May 21	Proposal for collaborative governance and enduring change management (Sep 21)	Advisory Group	ON Steering Group ENFG
	Seek input from product leads, ENFG and stakeholders	Mar – Jun 21			
	Develop options for governance arrangements	Jul 21			
	Define Terms of Reference and proposal for implementation	Aug - Sep 21			

Flexibility in GB Reporting

Through the ENA website, we will continue to provide visibility of on-the-ground developments that relate to flexibility. This will include the following:

- Flexibility Figures – ENA will continue to support 6 monthly reporting of flex figures on the basis of the agreed template from Q3 2020. DNOs will be asked to report flexibility as part of their new licence condition (SLC 31E) and Ofgem will be defining the requirements of this reporting for DNOs. Should any change or additional reporting be required, this will need to be considered as additional scope that will be reviewed in light of other priorities and will need to be approved by the Steering Group. It may be that ENA collates the individual figures reported by DNOs under SLC 31E, that ENA continues to report the template from 2020 or both.
- Flexibility Timeline – We will continue to maintain this timeline in its current form to give visibility of planned DNO flexibility tenders.

Workstream 1A – Flexibility Services

Introduction

Open Networks and the network operators have made significant progress on flexibility services since the dedicated Open Networks workstream was launched at the beginning of 2019.

With over 2.9GW of flexibility planned for tender by DNOs in 2021, WS1A is playing a key role in helping all DNOs to prioritise flexibility and deliver against their flexibility commitment. Open Networks has introduced standard approaches to the procurement of this flexibility, including ESO service input, and has simplified participation for potential providers whilst providing more transparency in this process.

It is key to recognise that we have started from a large body of potential areas of work for WS1A in 2021 and that we cannot deliver everything that has been identified as potential areas of development within the resources we have available to us. We have made a decision to prioritise the products set out below to ensure that we deliver tangible change in areas of priority for Ofgem, BEIS and industry stakeholders. There are some areas for development that we have planned to develop in 2022. This is an ambitious body of work; it is a step up in comparison to work that we delivered in 2020 and will require more network resources to deliver. We will continue to monitor progress more closely to ensure that we deliver this body of work.

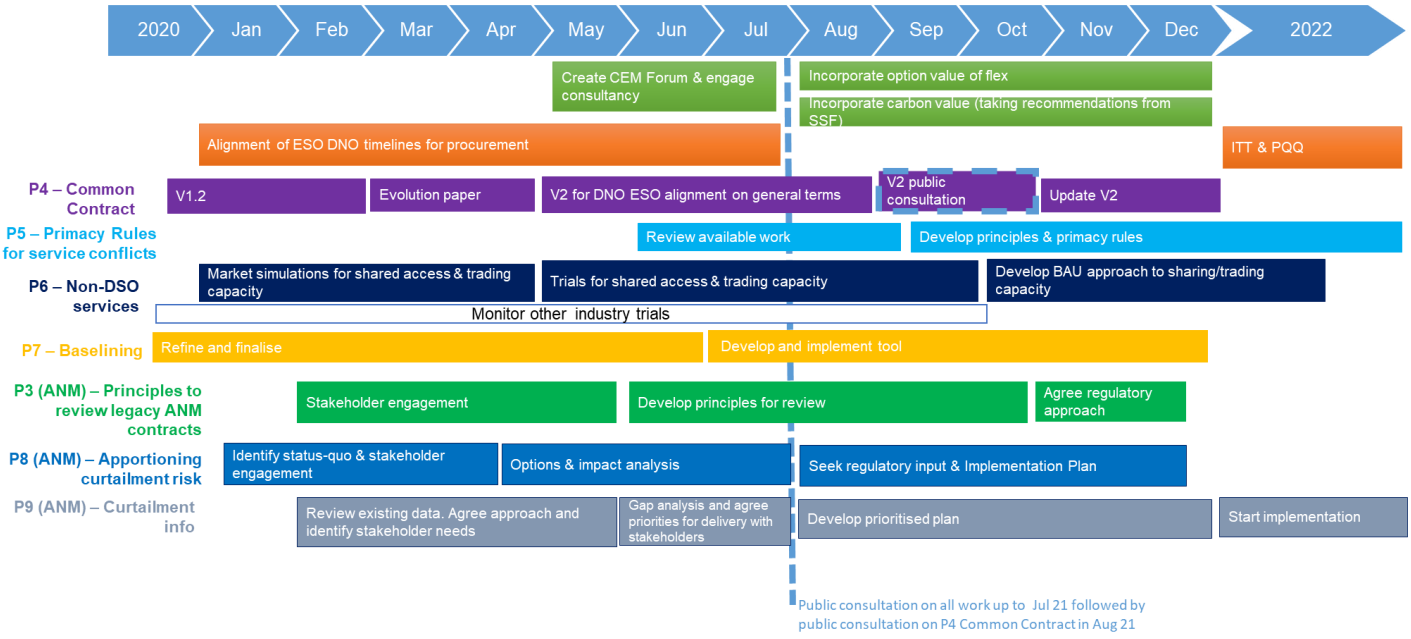
Workstream Objectives

The following are the key objectives of this workstream:

- Bring more transparency in how DNOs facilitate local markets for flexibility and make decisions to provide more confidence in independent decision making.
- Simplify participation in local flexibility markets through standardisation of approaches across DNOs and between DNOs and the ESO.
- Address barriers to participation in flexibility markets and facilitate stacking of revenues across multiple markets.
- Address industry concerns around the use of Flexible Connections and Active Network Management (ANM) and its interaction with Flexibility Services in the current access regime and consider future arrangements in light consideration of Ofgem's ongoing work on the Access SCR. See section on Background to work on ANM and its interaction with Flexibility.
- Enable new markets (outside the direct procurement of services by DSOs) to help customers realise more value from flexibility and allow more effective use of network capacity.

Workstream Scope

The latest view on products for WS1A in 2021 is set out below. Similar to previous years, we will consult on all 2021 work produced up to July to take on board stakeholder feedback into our development work. A public consultation on V2.0 of the Common Contract (P4) will follow in August.



Workstream Products & Timeline

P1	Enhancements to the Common Evaluation Methodology and Tool

Description

The aim of this Product is to review and consider methodological enhancements to the Common Evaluation Methodology (CEM) and Tool in the areas of optionality and carbon assessment.

Note: In 2020, this product clarified the use of the CEM tool for ANM (Active Network Management). The current scope does not include any further work on this however proposals for the inclusion of the wider costs of ANM for connectees will be submitted for consideration by the new User Forum for the CEM and Tool, currently being developed by Open Networks.
Any additional actions that may come as a result of Ofgem's minded to position on the SCR (Significant Code Review) will need to be scoped and reflected.

Background

On 1 April 2021 the baseline Common Evaluation Methodology and Tool developed in the Open Networks Project in 2020 will go live and be used by the DNOs to evaluate flex and traditional intervention options for an identified network need. During its development the Product team had feedback via the Advisory Group and from consultation responses that the baseline was a good start but didn't go far enough in two areas. The first was optionality and the second was carbon impact assessment. The Product team working with an external consultancy and other interested parties under the open governance arrangements agreed by the Steering Group in October 2020 will review and consider the options to enhancing the methodological approaches to the pricing of optionality for flex and the full assessment of embedded and operational carbon for all intervention options.

Benefits

Undertaking a review of two key methodological approaches in the baseline methodology and tool shows that we are listening and responding to our stakeholders and improving the tool and methodology to better reflect the value of flexibility.

Indicative Impact for licensees to implement:

- ***Impact***: There is likely to be no or minimal on the DNOs (Distribution Network Operators) other than training to use the methodology and tool by DNO personnel.
- ***Timing:*** The implementation of the tool and methodology published in December 2020 is April 2021. The timing of implementation of the next version of the tool and methodology will be in 2022. Timing will be confirmed when this version of the tool and methodology is completed.
- ***Cost:*** Normal costs of engagement from DNO personnel in this Open Networks Product; plus costs of consultancy support.

Dependencies

It is important that this Product and the Workstream 4 Whole Systems CBA (Cost-Benefit Analysis) Product continue to engage so that any developments in each of the Products is reflected in the other, where appropriate.

As part of the next Smart Systems and Flexibility Plan, the government is looking at approaches to carbon monitoring and pricing across the industry. This will be a key input into any changes made to the CEM and tool that relate to carbon value.

Public Consultation

As the review will be conducted under the open governance arrangements it will consider consultation and/or engagement with the Advisory Group at key stages to gather views and comments from a wider population in addition to those involved in the review process.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Set up open governance arrangements	Create CEM forum under open governance arrangements. This forum will be made up of the product team and include interested network and non-network industry reps.	3 months	Apr – Jun 21	New forum created (Jun 21)	Yes, comms to share open invite	ON Project team
B	Appoint consultancy support	Undertake tender process for consultancy support	2 months	May – Jun 21	Consultancy appointed (Jun 21)	No	ON Project team & Steering Group
C	Review existing approaches to option value and carbon assessment	Within CEM forum review current approaches, generate new approaches, analyse options, recommend and implement changes.	7 months	Jun to Dec 21	Revised CEM and Tool (Dec 21)	Yes, potentially consultants, webinar and AG engagement	ON Steering Group

P2	Procurement Processes

Description

In previous years, this product has defined common flexibility services, delivered alignment across DNOs on procurement activities including how and when tenders are assessed by DNOs. In 2021, this product will focus on delivering further alignment on procurement timescales between the DNOs and the ESO (Electricity System Operator) (including consideration of the Capacity Market).

Alignment of procurement timelines, including with the ESO – In 2020, DNOs consulted stakeholders on the benefits of converging on procurement windows. In 2021, these will be implemented, and the group will build on this work to consider alignment with ESO procurement cycles. Where it is not possible to do so, this product will clearly capture the rationale.

Background

This product is a continuation of WS1A P2 that developed a proposal for alignment across DNOs in the assessment stages and milestones in the flexibility procurement cycle.

Benefits

This product will deliver consistency in timing of procurements between the DNOs and the ESO that may help to simplify stakeholder participation in multiple markets.

Indicative Impact for licensees to implement:

- ***Impact***: Process change- Impact to current process is expected. No IT/infrastructure changes are expected as a result of this product.
- ***Timing:*** Within ED1
- ***Cost:*** The cost is not expected to be significant and will vary by company.

Dependencies

N/A

Public Consultation

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Alignment of ESO DNO Timelines	Review both ESO procurement times and identify windows for each. Agree on an approach to align and agree implementation timescales.	7 months	Jan – Jul 21	Paper outlining confirming timescales for alignment with ESO timescales or reasons for not being able to align. This paper will also	Advisory Group	ON Steering Group

					confirm implementation timescales for any proposals for alignment across ESO and DNO procurement timescales. (Jul 21)		

P3	Principles to review legacy Flexible Connection (ANM enable) Contracts *Principles for Reviews of Curtailment Restrictions in Legacy Flexible Connection (ANM enabled) Contracts*

Description

Using work developed under Open Networks (2019 WS1A "The Interactions between Flexible Connections (ANM) and Flexibility Services" this product will develop a set of principles for reviewing the curtailment requirements specified in existing FC(ANM) contracts and, where it is possible, offer more or improved curtailment choices. As part of that review and in considering the next steps, we will consider general principles for "exit strategies" for ANM connectees to proactively request from DNOs. The principles will set out a consistent approach recognising that the needs of both the networks and the users may vary by location.

Ofgem's A&FLC SCR is considering changes to the distribution connection boundary, potentially reducing customer exposure to deep reinforcement costs and the need for Flexible Connection (ANM) connections. To avoid the risk of undertaking work subsequently invalidated, we are focusing on low regret activity that does not rely on Ofgem's decision.

Background

Stakeholder feedback on the use of Flexible Connections (ANM) have expressed concerns that these schemes are having an adverse impact on the growth of flexibility services and markets.

While the Flexible Connection (ANM) contracts (and degree of curtailment risk) is often fixed at the point of connection, the value users place on network access can vary over time. In addition, as the DNO network evolves, and constraints change over time, the curtailment requirements and windows, determined at connection, may need revisions. Currently, there is no formal process for reviewing legacy contracts that may have been in place for many years.

A review of curtailment restrictions in legacy Flexible Connection(ANM) contracts may, in some cases, result in less curtailment and / or greater clarity enabling these assets to participate more in the provision of current and future flexibility services.

Benefits

A review of the current curtailment needs and the provision of options on how firmness could be improved will:

- Improve the Flexible Connection (ANM) asset owners' knowledge of ANM, curtailment restrictions, and the other options available
- Potentially, more efficient use of the assets with Flexible Connections (ANM) if the reviews enable more of these assets to participate in the provision of current and future flexibility services
- Potentially, more efficient use of the network with the curtailment needs matched better to the current network operation

Indicative Impact for licensees:

- Impact: Impact will depend on the number of contracts reopened and will vary by DNO
- Timing: Aim is to offer reviews in ED1 but this will depend on the approach agreed

- Cost: DNO discussions with Ofgem once approach agreed

Public Consultation

Yes, including in-depth focus group workshops.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Understand the content and range of curtailment information and approaches in legacy contracts	Review sample contracts from all DNOs to assess current approaches to the provision of curtailment information. Identify best practice and the definition of "legacy" in this context.	2 month	Feb – Mar 2021	Report	DNOs	WS1A / ONP Team
B	Engage stakeholders to understand better their information needs in a review of curtailment requirements	Workshop or consultation with stakeholders Capture feedback and recommendations	3 month	Mar - May 2021	Workshop and report	ONP Advisory Group Users with FC(ANM) Assets Focus group workshop	ON Steering Group
C	Develop a set of principles for carrying out reviews of curtailment requirements in legacy contracts; including the approach to identifying and offering improved curtailment choices where it is possible. Noting there is risk that improvements will not always be possible.	Review current approaches to curtailment information in legacy contracts as per the definition identified in A Review Stakeholder feedback and recommendations. Develop a simple users' guide for Flexible Connections (ANM) Curtailment (link to WS5) Review approaches to identifying and	6 months	May - Oct 2021	Curtailment Guidance "Legacy Contract Curtailment Review" Principles Consultation Publish principles for legacy contracts ("legacy" as defined in A) and where appropriate identify those that can be	DNOs ONP Advisory Group Users with FC(ANM) Assets Focus group workshop	WS1A& ON Steering Group

		offering improved curtailment options Review approaches for managing stakeholder expectations where improvements are not identified Develop and consult on a set of principles for reviews of FC(ANM) legacy contracts and where appropriate their application as best practice in future FC(ANM) contracts.			incorporated as best practice in future FC(ANM) contracts		
D	Agree with Ofgem the approach to cost recovery resulting from the provision of improved curtailment options	Some alternative / improved curtailment options may result in additional costs for the DNO outside of the current price control.	7 months	Jun - Dec 2021	Agreed regulatory approach to the costs of any alternative curtailment options	DNOs Ofgem	WS1A and ON Steering Group

P4	Commercial arrangements - Standard Agreement

Description
Improve the existing Standard Agreement against feedback collected since the release of Version 1.1, include liability, indemnity and insurance (L, I & I) elements resultant from the Ofgem/BEIS workshop in 2020 and release an updated Version 1.2. Review the ability and evolution required to enable DNO's to adopt a framework approach to securing flexibility services in a similar fashion to the ESO's suite of services. Produce a paper mapping the requirements and expected timescales of this evolution to be released alongside version 1.2.
Commence alignment between the Standard Contract and ESO's general Terms and Conditions document to produce Version 2 of the industry Standard Agreement for full consultation before implementation. Version 2 will address the majority of accessibility issues previously identified. Version 2 will not be the final version as we will look to move to a framework procurement of services model as the markets mature.

Background
Version 1.1 of the Standard Agreement has received a broad range of feedback since its implementation in April 2020, with specific focus on the need for greater accessibility for aggregators and smaller DER providers as well as the need for more balanced and relaxed clauses. Further to this is the inherent need to align DNO and ESO contracts across the range of services which was the objective of the 2020 scope but suffered significant challenges.

Benefits
- Improved contract for DNO services in 2021
- Visibility of further alignment opportunities for DNO/ESO agreements

- Initial 'whole industry' standard agreement released

Indicative Impact for licensees to implement:

- ***Impact:*** There is likely to be reasonable if not significant impact on the DNO's and ESO in the adoption of new agreements, as well as the required resource to review and contribute to final drafting. The specific teams affected will be the Flexibility services, Procurement, and Legal teams for each network operator.
- ***Timing***: For DNO's it is likely that a period of 2-3 months will be needed to fully adopt the new standard agreement post review, consultation and release and some legacy contracts will remain in place for up to 4 years. For the ESO the adoption will be far more complex with additional consultations and regulatory review periods imposed. As such full ESO adoption is not likely for a period of 9 months post finalisation.
- ***Cos***t: This is DNO/ESO dependant based on their ability to secure in house legal support vs external, commercially secured legal support.

Dependencies

ESO Contract Suite

Version 1.1 Industry Standard Agreement

ADE Support of aggregator needs/redrafting

WS1A Product outputs, example P3 Service parameters

CEP/Regulatory requirements

Public Consultation

Yes, Aug 21

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Version 1.2 Standard Agreement	Legal review of feedback points, ADE support of re-drafting, Construction of L, I & I options for adoption.	2 months	Jan - Feb 2021	Version 1.2 (Feb 21)	N/A	WS1A and ON Steering Group
B	Contractual Evolution Report	Map DNO requirements/preparations, engage internally to approve suggested timelines	3 months	Feb - Apr 2021	Evolution Report (Apr 21)	N/A	WS1A and ON Steering Group
C	Version 2 Standard Agreement	Align Version 1.2 and ESO T&C's documents, legal support in drafting and structural alignment, internal reviews and external consultation pre-release	10 months	August 2021 (Consultation) December 2021 Release	Version 2 Standard Agreement (Dec 21)	Public consultation	WS1A and ON Steering Group

P5	Primacy Rules for Service Conflicts *System operation "primacy" rules for the economic and efficient management of networks, flexibility services, and the facilitation of market based flexibility platforms.*

Description

Conflict between one or more services required by the ESO or the DNOs may result in inefficiencies within the electricity system. In order for the ESO and the DNOs to manage service conflict and optimisation efficiently and transparently, whilst also facilitating the potential for flexibility market platforms, there is a need to develop a set of clear principles and "primacy" rules. These will enable the order of despatch of services to be influenced by whole system value and ensure that the division between market/price-driven actions and the electricity system hierarchy of operations/needs is clear and transparent.

Using work developed under Open Networks (2019 WS1A DSO Services – Conflict Management & Co-optimisation and DSO Revenue Stacking), this product will develop a set of principles and primacy rules for addressing flexibility service conflicts (T-D). These rules will look to balance: the local networks' technical requirements; the risks to the overall operability of the whole system; the value for Flexibility Service Providers (FSPs) through the facilitation of market / price driven actions; the needs of emerging market based platform developers; and ultimately the end consumer.

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. Network owners and system operators are committed by standard licence conditions to support the running of an efficient and economic electricity system and realising the net economic benefits of the co-optimisation of flexibility services is a high priority for network owners and system operators, but this could also be a facility enabled by new emerging flexibility platforms. The way roles and responsibilities on the electricity system are currently distributed, and the differences in visibility created by traditional boundaries, means conflicts across different parties and actors are becoming more likely in the future. These include:

- More than one user of flexibility services trying to use the same asset at the same time. (regardless of whether they want the same action).
- More than one flex service user trying to use the same asset – only if working on opposite directions.
- Different flex service users procuring/dispatching services on different assets that are electrically arranged so that one service negates or partially negates the other.
- DNOs ANM scheme reducing generation constriction (or load restriction on Load ANM scheme in the future) which negates the impact of a flexibility service procured/dispatched by a third party.
- A flex service user (other than DNO) procuring/dispatching a service that results in a capacity threshold being breached on the DNO network, and then causes the DNO to take action (may or may not be flex service) to avoid that threshold.
- A DNO procuring/dispatching a service that results in a capacity threshold being breached at the Grid Supply Point and then causes the ESO a problem.

To minimise these issues 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. Having a defined set of principles and rules will also be a prerequisite for the developers of future flexibility market platforms. It is likely that a series of Primacy Rule releases will be required as the system needs, products and services, evolve over time.

The aim of this work is to:

- Increase accessibility for iDNO (Independent DNO), DSO and ESO flexibility to be used for whole system benefits
- Enable the order of dispatch of services to be influenced by the whole system value

- Ensure that the division between market/price-driven actions and the electricity system hierarchy of operations is clear and transparent.
- Facilitate future moves towards real-time pricing/valuation of utilisation vs fixed/pre-procured pricing

This product scope covers the delivery of the first version of Primacy Rules for implementation, providing networks, stakeholders, market platform designers etc. with clarity and transparency on the approach and likely impacts across the system(s). Trials are typically funded and led by industry and would need to follow the due process for that. ON will provide a scope/design document and will continue to monitor, provide input and take learnings from the trials. Physical implementation of the 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.

Benefits

- Mitigate the risk of higher network operational costs due to service conflicts
- Optimise the value of flexibility services from FSPs
- The division between market/price-driven actions and the electricity system hierarchy of operations is transparent; facilitating the development of future flexibility market based platforms
- Overall clarity on primacy rules will ensure 1) FSPs are better able to manage their operational risks and 2) consistency and transparency in future product and service designs
- Ensure overall system operability is maintained
- Reduce costs for the end consumer

Indicative Impact for licensees to implement:

- Impact: TBC through proposed [RDP] trials
- Timing: ED2
- Cost: TBC through proposed [RDP] trials

Dependencies

There are a number of other co-ordination needs, primarily associated with DNOs and the ESO having visibility of each other's actions and to coordinate / align procurement activities. These aspects are covered in the following ONP 2021 products:

WS1A P2 Procurement Processes – alignment of procurement ESO/DNO processes and timetables

WS1B P6 Operational DER visibility and monitoring

WS1B P7 Operational Data sharing – definition and recommendations

WS1B P4 Real Time Data Exchange and Operational Forecasting

Public Consultation

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Review available work and agree approach for further work.	Review available work including previous work done under ON 2018 and 2019 WS1A P5.	3 months	Jun – Aug 21	Plan outlining approach to deliver this product.	Advisory Group	WS1A and ON Steering Group

B	Begin development of principles and primacy rules. Best view on activities is set out below but this will be reviewed and refined as part of A.						
B1	Develop and agree primacy **principles** for a range of likely scenarios; prioritised by 1) value to networks and FSPs and 2) likely needs timeframe.	Establish a network group (DNOs and ESO) to map out and define expected use cases / flexibility scenarios where close co-ordination and co-optimisation in both planning and operational timescales are required. Establish a small stakeholder expert panel, 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	3 months	Sep - Nov 2021	Report setting out primacy principles for network coordination and co-optimisation for a range of defined scenarios / use cases [and prioritised by value to networks, FSPs and likely time to need]. (Nov 21)	Stakeholder Expert Panel Advisory Group	WS1A and ON Steering Group
B2	Develop draft Primacy Rules to deliver the proposed primacy principles for initial testing	Using the principles and agreed scenarios / use cases develop a draft set of Primacy Rules and associated high level IA. Leverage Stakeholder Expert Panel input. Approach to be determined but, for example, may be on a service-by-service approach and consideration of the interaction	6 months	2022 onwards	Report setting out the draft Primacy Rules identified and approach to trialling. Report to also assess high level impacts on networks, FSPs and platform providers.	Stakeholder Expert Panel Advisory Group	WS1A and ON Steering Group

		with Regional Development Programmes					
B3	Trial the draft Primacy Rules / concepts and review impacts [in the Regional Development Programme Areas where the use cases can be accommodated in the live environment]. Where necessary, desk based pilot of rules not in the trials to determine efficacy and risk etc.	Identify suitable RDP areas; design trial documenting implementation approach and critical success factors. Implement trial of relevant rules in live environment. Desk based testing scenarios for use cases that cannot be accommodated above or require stress testing before taking forward. Test potential scalability of solutions tested in RDP. Trials to explore roll out options and determine target date for implementation at scale and estimated costs.	12 months		Report documenting : • learnings and recommendations for additional changes to the draft Primacy Rules to deliver V1.0 • Approaches and options for roll-out at scale to include target date (s) and estimate of implementation costs	Stakeholder Expert Panel Advisory Group	WS1A and ON Steering Group
B4	Publish V1.0 of Rules, proposed review periods and [initial target] date for roll-out at scale	Accommodate the trial learnings into a V1.0 of Primacy Rules Consider the need for further stress testing of the proposed rules at both T and D. Determine governance of Primacy Rules; and review periods to check Primacy Rule validity against evolving system operability	3 months		V1.0 of the Primacy Rules published. Includes approach to governance and future reviews. Set out indicative costs and target dates for options to implement at scale.	Stakeholder Expert Panel Advisory Group	WS1A and ON Steering Group

		challenges in future.					
B5	Apply primacy rules to both DNOs' and the ESO's planning and operational processes	Develop and signoff a full roll out programme to accommodate the Primacy Rules [in ED2] Agree change process and governance of Primacy Rules	TBA		A full change programme to roll out the necessary changes. Depending on the solution(s) identified likely to require major changes to operational processes, enhanced data exchanges / systems. Change governance		WS1A and ON Steering Group

P6	Non-DSO Services

Description
Product 6 has been working with a range of current innovation projects to establish how distribution network companies can best support non-DSO (Distribution System Operation) services and align/utilise their proliferation with/for grid resilience. It is clear that peer-to-peer trading could utilise commercially sterilised capacity on the network through non-traditional methods and allow the value of that capacity to be discovered through market-based mechanisms.

In 2021 this product will focus on the principles/rules of engagement for market participants to trade/share capacity. As part of that scope it will also test the market principles and data sets that were identified by 2019 WS1A P1 and P6 to enable neutral facilitation of this new market both pre & post transaction to ensure there is no detrimental impact on the network.

Background
This product is a continuation of 2019 WS1A P1 and 2019/202 P6 and incorporates outputs from the Non-SCR Access Working Group (P1 & P2) on the exchange of capacity and curtailment obligations and the Flexible Connections (ANM enabled) ONP PID 2021 Priorities Workshop that was attended by the ENA, BEIS and Ofgem.

- **Flexibility Market Principles** - 2019 WS1A P1 2019 asserted that a principles-based approach to Flexibility Markets offers significant opportunities to enhance the confidence and satisfaction of participants, growing industry trust. Such an approach should provide certainty and consistency for Market Participants, as well as facilitating innovation and enhancing competitiveness. Early definition of fair principles for participants, based on engagement with the whole sector, can reduce the level of perceived conflict, support efficient operation of Markets as they develop, and help define where a more formal governance approach may be needed in the future. In addition, other stakeholders can benefit from assurances regarding the behaviour of participants as they focus on outcomes that embed good practice in the market. These principles were expanded for the Non-SCR work.

- **Facilitation of New Markets 2019** - In the second half of 2019 WS1A P6 started to consider how networks could facilitate other markets (e.g. peer-to-peer trading platforms, capacity management, trading flexibility to take on or avoid constraints) in addition to directly procured DSO services. It looked at:
    - Principles identified through WS1A P1 2019 and proposals established through the Industry-Led Access Working Group's work on exchange of access
    - What data needs to be provided to facilitate new markets,
    - What data needs to be sent to network operators after any action/trade is made

  As defined in the second objective of Workstream 1A, DNOs have a clear role in facilitating those markets that are starting to emerge that are realising value from flexibility outside the remit of DSO services. There is a wealth of data openly available that system operators have already provided, but in order to facilitate new and emerging markets, and to help expand existing ones, this existing data may need to be processed in different ways, or additional specific data may be required. There is also a wealth of innovation underway (BEIS FleX Competition, Open Networks' TEF and Innovate UK's Project LEO) that is exploring potential new markets, but all of these projects are still at a very early stage.

- **Non-SCR Work** - The Non-SCR Industry-led Access subgroup developed a set of principles and potential trading rules that could underpin the trading of capacity. These have been tested at a high level in the market simulations as part of the LEO and TRANSITION projects. The principles are:

    1. Transparent information sharing
    2. Ability to maintain network continuity
    3. Visibility of other potential trading parties, and
    4. Transparent trading arrangements.

  A summary of the principles can be viewed here as part of the Charging Future's paper on Access and Forward-looking Charges and the full report from the industry sub-group is here. They have since produced a paper on sharing capacity that will further support this product. The following are the links to the outputs from the Access and Forward Looking SCR group and the Non-SCR group that will inform the approach to the market simulations and the subsequent trials:

  Non-SCR
    - P1 & P2 reports (The Trading of Non-firm distributed generation curtailment obligations', and 'The Exchange of Access Rights between Users) - http://www.chargingfutures.com/media/1396/product-1-and-product-2-combined-report_version-10.pdf
    - Scope document that was developed by the Non-SCR Group that has now been considered and incorporated into this work.

  Access SCR
    - Sharing and trading explained - http://www.chargingfutures.com/media/1418/scr-access-sharing-and-trading-explained.pdf
    - Defining local shared access rights - http://www.chargingfutures.com/media/1461/scr-access-product-2-defining-local-shared-access-final.pdf

- **Flexible Connections (ANM enabled) ONP PID 2021 Priorities Workshop (5th December 2020) –** part of this workshop focused on how we can reduce DNO reliance on FC(ANM) to minimise sterilisation of flexibility services within these schemes, minimise the curtailment risks for FC(ANM) assets, and create additional opportunities for flexible services. BEIS priorities for **this** product were:

    - **Trading Options and Exit Strategies for FC(ANM) contracts (existing)**
        - Option to trade access rights with another participant (covered in ONP-2021-P6 non-DSO Services Product)

- **Trading / Sharing Options**
  - Enable the Trading Options identified in the non-SCR product (covered in ONP-2021-P6 non-DSO services Product) to manage curtailment risk
  - Trading of Merit Order
  - Trading of non-curtailed capacity
- **FC(ANM) - VPP Model behind an ANM Scheme**
  - Enable FC(ANM) assets to match with flexibility services co-located and / or in an area defined by the ANM scheme. Needs:
    - A common platform for trades
    - Networks to provide clearer specification on when / how often exports must be limited
    - Networks to clearly specify the area within which they can trade

Scope and Benefits

Clearly the current circumstances have impinged on project activity in 2020 but WS1A P6 is still keen to develop DNO and iDNO understanding on non-DSO services and how they can best be facilitated in a neutral manner. We welcome iDNO participation in the market simulations and trials that are informing this product. The timeline for the projects mentioned in the previous section extend way beyond the end of 2020 so learning will continue to be derived from them in 2021. Nevertheless, innovation in this area is gathering pace so WS1A P6 needs to start assessing how networks can best facilitate these emerging markets. Following the feedback from BEIS in the previous section priority will be given to the following questions in 2021:

- How do DNOs facilitate **sharing** of capacity?
- How do DNOs facilitate **trading** of capacity?
- how do DNOs facilitate these transactions whilst ensuring system resilience?
- how do DNOs create scalable interfaces that allow these markets to flourish?
- How do the DNOs create a coordinated and aligned BAU approach to these activities?

In 2021 WS1A P6 will be undertaking the following activities to start to address these questions:

- Market Simulations
- Basic Market Rules (BMR) were drafted, tested and iterated through five 'Market Rules Simulations' held during 2019 for Project TRANSITION. BMR considered all five TRANSITION services (see 3.3.1). Scenarios addressed specific individual issues, including asset approval, service delivery, failures to deliver, communications issues, and penalties. BMR continue to be iterated during 2020 in collaboration with SSEN and WS1A P6 as well as FUSION who were trialling the Universal Smart Energy Framework (USEF).

  Early in 2021 Origami will be leading on similar market simulations for WS1A P6 focused on sharing and trading capacity that will extrapolate basic market rules for these non-DSO services. Stakeholders will be engaged to take part in these market simulations. For example, the REA have been heavily involved in the Non-SCR work and WS1A has extended the invitation to be part of Product 6 in 2021. The REA have a number of landfill gas generation members who have capacity that is not being utilised to its fullest extent and the market simulations will be able to explore how its value can best be realised.
- Live Trial
- Following on from the market simulations Product 6 will be exploring a live trial of sharing/trading capacity to ascertain whether DNOs can facilitate new connections or a more efficient use of available network capacity by allowing 3rd parties to make use of the capacity at a market-determined price. It will work with a platform to

create scalable interfaces, provide data that allows 3rd parties to search for qualifying capacity and enter in to sharing/trading arrangements whilst maintaining system resilience.

- Guidelines for BAU Implementation
- Using the learning from the market simulations and the live trial establish a consistent approach to facilitating the sharing/trading of capacity that:
    - Describes /defines a future with access rights trading and its interaction with flexibility markets
    - Develops and defines capacity trading products/options
    - Assesses the impacts on network management/contractual risk

Indicative Impact for licensees to implement:

- Impact: This will depend on the BAU approach identified
- Timing: This will depend on the BAU approach identified
- Cost: This will depend on the BAU approach identified

Dependencies

- Exploration of CREDs concept of core capacity - working with CREDS to understand concept of 'core capacity' and how it might be applied to sharing/trading capacity.
- Working with other relevant industry trials to exchange learning – e.g. Project LEO, Project TRANSITION, Project TraDER

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Market Simulations	Engage with stakeholders to gauge interest and recruit participants in January. Origami will run market simulations for sharing and trading capacity to test market principles and explore datasets	Series of 1-day workshops	Q1 2021	Paper summarising Market Simulation findings (Apr 21)	Open invite for stakeholder participation	ON Steering Group
B	Shared Capacity Trials and Traded Capacity Trials	Trials utilising findings from market simulations	6 months	Q2/3 2021	Paper summarising Trial Outputs (Sep 21)	Expert stakeholders	ON Steering Group
C	Work to establish a BAU approach to sharing and trading capacity across the DNOs	Drawing on learning from market simulations and shared and traded capacity trial to establish a common	12 months	Sep 2021 – Apr 2022	Paper outlining the rules and requisite datasets that will enable neutral	Advisory Group and expert panel to review	ON Steering Group

		methodology across DNOs			facilitation of these markets by DNOs (Draft in Dec 21)		

P7	Baseline Methodologies

Description
Implementation of common baseline methodologies for adoption by all DNOs. This product will seek to further consult with stakeholders to refine and agree baseline approaches which will be adopted by DNOs for their operation of flexibility products, following which a robust implementation and governance plan with be defined and support tools developed.

Background
This product is a continuation of the 2020 WS1A P7 product which sought to assess existing UK and international baselining methodologies and recommend suitable methodologies for adoption by the UK distribution flexibility market.

Benefits
- Implementation of a common approach will address stakeholder concerns around inconsistencies between DNO baseline methodologies.
- Increase transparency and improve stakeholder confidence with a view to increase participation by;
  - Publishing a clear and adoptable common approach.
  - Development of a common verification tool to support both DNO and Provider with implementation of both prior and post event baseline verifications.
- Deliver a governance structure to ensure;
  - DNO standardisation e.g., through relevant code mod.
  - Ongoing monitoring of future changes that could be required as D-flex evolves.
  - Identifying further alignment potential with wider markets.

Indicative Impact for licensees to implement:
- Impact: Medium
- Timing: Medium
- Cost: Medium

Dependencies

New 2021 ENA Product to manage change/governance

Public Consultation

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Stakeholder Feedback	Conduct a webinar with relevant stakeholders to share baselines recommendation outcomes of WS1A 2020 P7 work.	2 months	Jan – Feb 21	Webinar and survey to ascertain broad agreement from stakeholders on recommended baselines.	Stakeholder webinar	WS1A

					(Feb 21)		
B	Refine and finalise baseline(s)	Produce verification tool specification. Interim report on the outcomes of stakeholder engagement including a roadmap of future work Agree DNO implementation strategy. Refine and finalise the recommended baselines. Develop an appropriate governance strategy and feed into wider ONP Open Governance project.	6 months	Jan – Jun 21	Verification tool specification document. (May 21) Stakeholder engagement outcomes & future work (May 21) Final baseline design. (Jun 21) Draft implementation roadmap and Governance strategy proposal. (Jun 21)	Advisory Group	ON Steering Group
C	Appoint solution architect	Appoint provider to build the baseline verification tool.	1 month	Jul 21	N/A	N/A	ON Steering Group
D	Build, test and confirm	Build and test tool with historical data sets. Undertake analysis to ensure results meet baseline objectives.	4 months	Jul – Oct 21	Analysis results. (Oct 21) Final verification tool and associated algorithms. (Oct 21)		ON Steering Group
E	Disseminate and implement	Publication and marketing of product outputs.	2 months	Nov – Dec 21	Final report. (Dec 21) Implementation strategy/timeline. (Dec 21)	Stakeholder dissemination	ON Steering Group

					Governance strategy. (Dec 21) Baseline verification tool and supporting documentation. (Dec 21)		

P8	Apportioning curtailment risk *Equalising the balance of curtailment risk for ANM connections*

Description
Active Network Management connections allow expedited access to the network at a vastly reduced cost in exchange for that access being limited by the DNO without compensation. This product will set out options for how the risk of curtailment might be more equitably spread across ANM connections, DNOs and existing customers. This may include options for caps and collars on ANM curtailment.

Background
ANM connections are provided with information on the prospective long term curtailment risk associated with their site, however this is linked to DNO load forecasting. As ANM systems automatically curtail access based on observed load, a reduction or increase in load outside of the DNO forecast will result in the ANM connections seeing higher or low curtailment, without visibility.
The risk carried by ANM connections is potentially unlimited and is outside their control to manage.
The DNO is best placed to assess and forecast the risk, but is not funded to take on the management of the risk.
Adjacent customers connected under firmer arrangements are protected from issues associated with over/under forecasting of load as DNOs are funded through load related reinforcement where the out-turn was not reasonably foreseeable and outside the DNO's control. Rectifying the issue may be at DNO cost if it was reasonably foreseeable.
Adjacent customers should be protected from bearing costs associated to the connection of new generation or demand in accordance with the charging methodology.
Flexibility may provide options for ANM connections to manage the curtailment, but processes need to be developed to open up this opportunity.

Ofgem's A&FLC SCR is considering changes to the distribution connection boundary, potentially reducing customer exposure to deep reinforcement costs and the need for FC(ANM) connections. To avoid the risk of undertaking work subsequently invalidated, we are focusing on low regret activity that does not rely on Ofgem's decision.

Benefits
- ANM connections are provided with a more equitable way of balancing curtailment risk
- Flexibility markets are created to provide more opportunities
- DNOs agree approach to limiting impacts of curtailment on ANM connections and ensure funding is available if required

Indicative Impact for licensees:
- Impact: DNOs may need to seek funding to manage excessive curtailment
- Timing: implementation towards end of 2021
- Cost: TBC

Dependencies

P3 ANM Principles to review legacy ANM contracts

Public Consultation

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Curtailment Risk Assessment	The mapping of curtailment/network access limitation risk will be completed for all demand, generation and storage customers on the distribution network	3 months	Feb - Apr 21	Matrix depicting status-quo position of risks, risk-holders and funding arrangements (Apr 21)	none	WS1A
B	Options and impact analysis for balancing the curtailment risk of ANM	Description of options for balancing curtailment risk amongst energy system actors, including strawman commercial agreements and funding arrangements. A full impact assessment to allow for a complete understanding of the implications of all options.	6 months	Feb – Jul 21	Paper detailing the options for future ANM options including impact assessment (Jul 21)	Paper for stakeholder consumption	ON Steering Group
C	Seek key stakeholder input on options		3 months	Jul - Sep 21	Webinar and bi-lateral feedback summary published (Sep 21)	Webinar explaining options/impact and bi-lateral stakeholder views sought	-
D	Agree regulatory approaches with Ofgem		3 months	Sep - Nov 21	Agreement on options to take forward (Nov 21)	-	ON Steering Group

E	Implementation Plan		1 month	Dec 21	Published Implementation Plan (Dec 21)	Published Implementation Plan	WS1A

P9	Curtailment Information *Strategy for Improving the Availability of Curtailment Information During ED1*

Description

This product will consider the approach to delivering accurate and timely curtailment information that is more granular, provided more frequently, and available at individual asset level. It will set out the initial approach to developing a curtailment information strategy with phased delivery of improved curtailment information ahead of ED2.

Background

As the distribution and transmission networks evolve and, in particular, the need to procure flexibility services closer to real-time grows, then more dynamic curtailment information will be required down to asset level.

Stakeholders have expressed concerns that the use of Flexible Connections, enabled by ENA schemes (FC(ANM)) are having an adverse impact on the growth of flexibility services and markets. The feedback suggested that the availability of improved curtailment information would improve opportunities in flexible services and revenue stacking for assets with Flexible Connections (ANM) and create additional services for Flexibility Service Providers (FSP) who can replace the curtailment needs with flexibility products.

This product will focus on setting out the approach to developing a curtailment information strategy with phased delivery of improved information ahead of ED2. Noting that longer term, to achieve information provision closer to real-time, far more detailed forecasting and the correlation of several data sources will be required as set out on the RIIO-ED2 Business Plan guidance.

Ofgem's A&FLC SCR is considering changes to the distribution connection boundary, potentially reducing customer exposure to deep reinforcement costs and the need for FC(ANM) connections. To avoid the risk of undertaking work subsequently invalidated, we are focusing on low regret activity that does not rely on Ofgem's decision.

Benefits

- Improvements in the availability and frequency of both curtailment and network information should increase the opportunities for both firm and non-firm assets to provide / stack flexibility services; ultimately reducing system costs for the end consumer
- Facilitate liquid flexibility markets, whilst accommodating the anticipated growth in low carbon asset connections, to support GB's transition to net zero

Indicative Impact for licensees to implement:

- Impact: Will vary by DNO as the existing approaches to curtailment information are different
- Timing: ED1
- Cost: Will vary by DNO. Will also depend on the solutions identified for implementation in ED1

Public Consultation

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Agree a Curtailment Information	Workshop and / or consultation with stakeholders to agree the approach to	4 months	Feb - May 2021	Report that captures the principles underpinning	Advisory Group	WS1A and ON Steering Group

	Strategy with stakeholders	improving curtailment information and the principles to be used e.g. user-friendly data; data ownership & management; data governance; transparency etc.			improvements to curtailment data provision and sets out the delivery approach up to end ED1. (May 21)	FC(ANM) Asset owners FSPs Market Platform developers	
B	Determine stakeholder curtailment data needs to end ED1	Determine the information required and how it should be delivered in order to: 1. improve FC(ANM) opportunities in flexible services and revenue stacking; and 2. create additional services for Flexibility Service Providers (FSP) – replacing curtailments needs with flexibility products.	3 months	March–May 2021	Report that captures the stakeholders' key requirements: e.g. which data sets are required, information granularity, frequency, reviews etc. (May 21)	Advisory Group FC(ANM) Asset owners FSPs Ofgem	WS1A and ON Steering Group
C	Capture current curtailment information availability	Update / expand on the ENA ONP "DNO Provision of Constraint Information"(Dec 2018) report	3 months	Jan – Mar 2021	Revised ONP "DNO Provision of Constraint Information" report (Mar 21)	DNOs	WS1A and ON Team
D	Compare current curtailment information provision with stakeholder needs identified in B	Complete a gap analysis and working with stakeholders agree priorities for a delivery plan	3 months	May – July 2021	Gap analysis of future needs with current curtailment information; and priorities identified. (Jul 21)	Advisory Group FC(ANM) Asset owners FSPs Market Platform developers	WS1A and ON Team
E	Develop prioritised plan to address gaps	Review potential solutions / optioneering with delivery timeframes ahead of ED2		Aug - Dec 2021	Consult with stakeholders on the proposed targeted plan to deliver improvements in the provision of curtailment information (Dec 21)	Advisory Group FC(ANM) Asset owners FSPs Market Platform developers	WS1A and ON Steering Group

F	Implement Plan			2022 onwards	Delivery Plan milestones TBC	Advisory Group FC(ANM) Asset owners FSPs Market Platform developers	WS1A and ON Steering Group

Workstream Activities

The following have been identified as activities for the workstream to undertake to help deliver the objectives of this workstream. The workstream will undertake these reviews at the milestones identified below. We have not factored in any additional products and associated development work from these monitoring activities. We expect that these reviews will be incorporated into the appropriate Workstream 1A meetings as discussion points. Should further actions that require delivery in 2021 be identified, we will treat this as additional scope and review this in light of other priorities.

Timing of review	Details
Jul 21	Open Networks commonly defined 4 active power services in previous years and these common definitions are now being used by all DNOs to procure these services. In July 21, WS1A will review the range of additional services that are being procured by DNOs to determine if sufficient learning is available to commonly define these services (such as reactive power etc.) in 2022. This will then provide input to the workplan for 2022 for the potential development of new standard services.in 2022.
Q2 & Q4 21	Ofgem is taking forward work on defining flexibility procurement reporting requirements for individual DNOs as part of embedding the Clean Energy Package requirements into licence conditions. Individual DNOs will be reporting on these requirements to meet their licence conditions. We expect that ENA will consolidate these figures on a 6-monthly basis with input from WS1A members to provide an industry wide view on the size of market and opportunities available across GB and that this will replace our current flexibility reporting. Should other changes be required to the GB wide reporting (e.g. if there are elements of previous reporting that would like to be retained), this will need to be considered as additional scope in light of other priorities. In addition, WS1A reps will continue to provide input into the Flexibility in GB timeline to provide visibility of upcoming tenders for flexibility.
Q2 2021	Improve the availability of information available to the ESO on assets with FC(ANM) connections and the associated ANM schemes. This would include better visibility of the ANM schemes, including which assets are connected where, and activation risks. The ESO will work with the WS1A DNO

	representatives to enable the required data exchanges and minimise the risk of FC(ANM) assets being excluded from flexibility service stacking.

Background to work on ANM and its interaction with Flexibility

The interaction between ANM and flexibility services was identified early in 2020 as a key priority and this was confirmed in discussion with BEIS and Ofgem and by stakeholders in the Advisory Group, bilateral engagements and their responses to the Flexibility consultation.

To ensure that we focused on the areas that would have the most impact, we reviewed all of the stakeholder responses to the consultation and grouped all of the comments raised into 20 themes. Broadly speaking, the issues raised covered four main areas of potential activity and for each of these the ONP, working with Ofgem and BEIS, reviewed the potential activities that could be undertaken in 2021. It was agreed that the focus should be on making progress in areas that did not rely on a decision from the Access and Forward-looking Charges SCR.

The four areas and activities that have been prioritised for the 2021 programme include:

1. *How can we reduce DNO reliance on FC(ANM) to minimise sterilisation of flexibility services within these schemes?*
    a) **Offer users a review of legacy FC(ANM) contracts.** WS1A Product 3 will look to develop a set of principles for reviewing the curtailment requirements specified in existing FC(ANM) contracts and, where it is possible, offer more or improved curtailment choices.

    b) **Apportion curtailment risk better - equalising the balance of curtailment risk for ANM connections.** WS1A P8 will set out options for how the risk of curtailment might be more equitably spread across ANM connections, DNOs and existing customers. This may include options for DNO caps and collars on ANM curtailment.

2. *How can we minimise the curtailment risks for FC(ANM) assets and create additional opportunities for flexible services?*
    a) **Facilitate the trading / sharing of connection capacity.** Work to consider how networks could facilitate other markets (e.g. peer-to-peer trading platforms, capacity management, trading flexibility to take on or avoid constraints) in addition to directly procured DSO services will continue as part of WS1A Product 6 (2021 Non-DSO Services). This activity will test the principles/rules of engagement for market participants to trade/share capacity.

3. *How can we improve opportunities for FC(ANM) assets in flexible services and stacking revenues?*
    a) Improve the availability of information available to the ESO on assets with FC(ANM) connections and the associated ANM schemes. This would include better visibility of the ANM schemes, including which assets are connected where, and activation risks. The ESO will work with the WS1A DNO representatives to enable the required data exchanges and minimise the risk of FC(ANM) assets being excluded from flexibility service stacking.
    b) **Improve the availability of curtailment information to users during ED1.** WS1A P9 seeks to provide better curtailment information enabling stakeholders to improve their risk management. In turn, this should enable participation in additional flexibility opportunities.

4. *What additional information do stakeholders need so we can work together on solutions more effectively?*
    a) **Improve stakeholder knowledge of the role of ANM**. ANM plays an important role in facilitating the growth in affordable connections and avoiding delays. It is also an important network control technology. Some stakeholders expressed concerns that some FC(ANM) contracts may have been signed without a full appreciation of the curtailment risks. WS5 will look to improve the information available to stakeholders and their knowledge of ANM schemes to both mitigate this risk and to improve stakeholder engagement in the development of solutions.

Workstream Assumptions

The key assumptions for Workstream 1A are noted below:

Resources.

- Sufficient resources will be deployed by each of the ENA member organisations to deliver the scope.
- Consultancy support will be engaged for the products below:
    - P1 – Common Evaluation Model
    - P4 – Commercial Arrangements (legal support)
    - P7 – Baselining Methodology
    - ANM products

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

Introduction

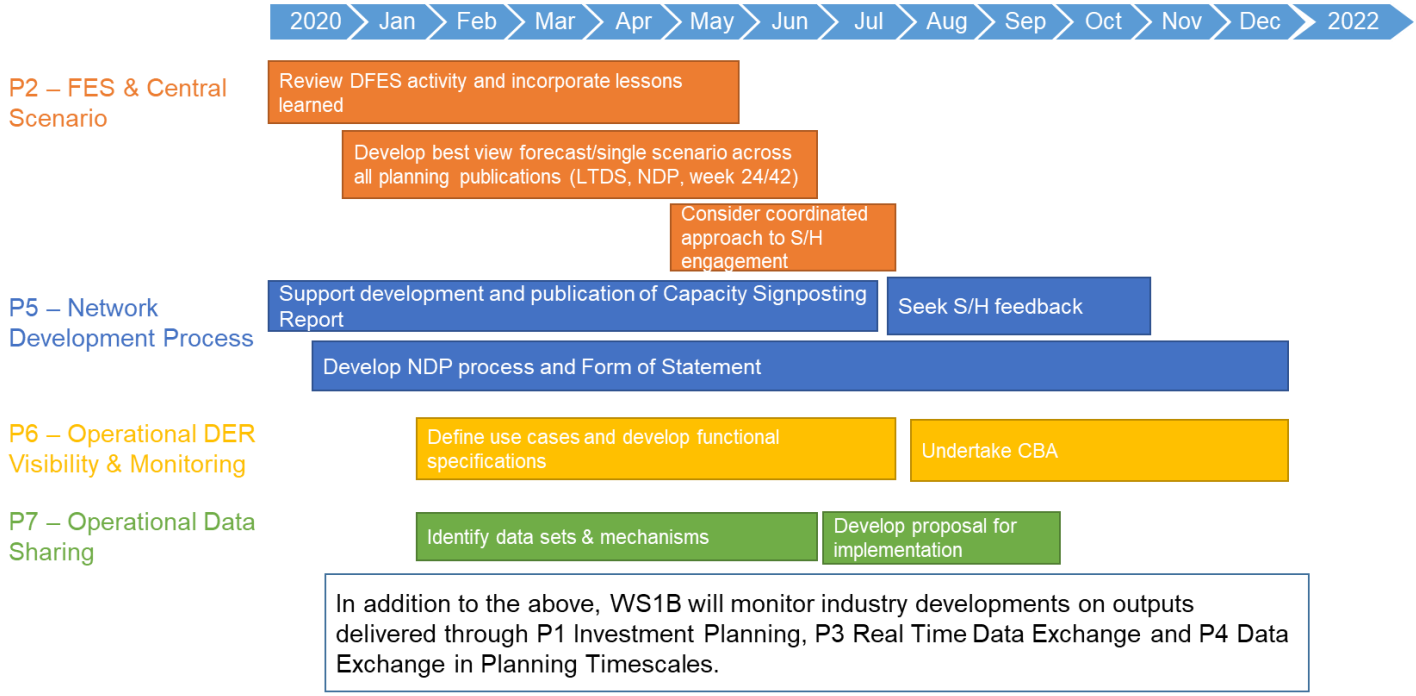
Coordination across the Electricity Transmission and Distribution interface is a key aspect of Distribution System Operation. Since 2017, WS1B has enhanced T-D (Transmission-Distribution) coordination and implemented change across areas including investment planning through Network Options Assessment (NOA) 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, we will also undertake work to support a standard approach for DNOs to deliver the new Network Development Plan (NDP) licence obligation.

The Regional Development Programmes and Pathfinder projects are key mechanisms for trialling improvements and informing the development of common approaches that can be adopted by all network companies. WS1B will continue to monitor these through 2021 to reflect learning in work as needed.

Workstream Objectives & Customer Benefits

The objective of this workstream is to take a whole electricity system approach to optimise existing processes across the Transmission and Distribution boundary by identifying synergies and developing more efficient processes for key network operator activities such as investment planning, operational planning and forecasting.

Workstream Scope



Workstream Products

P2	FES & Central scenario

Description

This product will build on the work of 2020 WS1B P2 to do the following:

- DFES - Review and incorporate lessons learned from the publication of DNO DFESs to identify areas for improvement. (Apr 20)
- Best View Forecast – Develop a best view forecast/scenario that is aligned to the DFES scenarios and is suitable for LTDS, week 24/42 submissions as well as the new NDP process that is being developed by P5.
- Stakeholder Engagement – Consider opportunities to coordinate stakeholder engagement activities across network companies and deliverables (e.g., DFES, FES, LTDS, NDP work).

Background

This product has delivered significant change through the years to help align the various Future Energy Scenario (FES) activities in the industry including more regional input into the GB FES and more standardisation across DFES publications by DNOs. During 2020, work started on the development of a Best View forecast to support to production of a Network Development Plan.

Outcomes & Benefits

This work will further improve the quality of DFES and FES publications for stakeholders. It will also aim to reduce the burden on electricity network stakeholders through more effective stakeholder engagement. The best view forecast will support the production of the NDP and provide alignment to other distribution deliverables such as the LTDS.

The central/best view scenario is a realistic forecast of distribution network demand and generation technologies uptake in near future, five to 10 years span. This scenario could be adopted by DNOs for NCP and LTDS publications where short term forecast of the network is required. These publications will provide right understanding of the network status and its requirements to the stakeholders in near future.

Indicative impact for companies to implement

- Impact: Process change
- Timing: Jun 2022 as this will be part of the NDP publication.
- Implementation Cost: Process change will be likely that may require additional resource.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**DFES Improvements**	Review 2020 DFES publications (inc. stakeholder f/b) and agree improvements to be made across DNOs to improve DFES quality and consistency.	6 months	Jan - Jun 21	Short report or slides on proposed improvements to DFES process & publications (Jun 21)	Utilise stakeholder f/b on DFES publications.	ON Steering Group.
B	**Best View Forecast**	Complete work started in 2020 to agree how a "best view" forecast is	6 months	Jan - Jun 21	Methodology for producing "best view" forecast and agreement	Advisory Group Others TBA	ON Steering Group.

		produced and how this should be used across work including LTDS, NDP and week 24 data exchange. DNOs to individually determine how they will implement the chosen "best view" forecast in their best view scenario forecasts.			on areas to which this should be applied. One-page descriptions from each DNO on how the favourite output scenario is employed in their best view scenario forecasts (Jun 21)		
C	**Stakeholder Engagement**	Consider opportunities to co-ordinate stakeholder engagement activities across network companies and deliverables. Undertake stakeholder engagement activity (Jul – Aug)	3 months	May - Jul 21	Stakeholder Engagement plan for main activities including FES, DFES, LTDS and NDP. (Jun 21) Findings of engagement activity & next steps (Aug 21)	Advisory Group Others TBA	ON Steering Group.

P5	Network Development Plans

Description

This product will build on WS1B P5's 2020 work on capacity signposting and its development of a Standard Network Capacity Report. In 2021 P5 will define the common high-level DNO end to end process for delivering the NDP licence requirements in the context of planning network investments and other reporting. BEIS's note shared with the ENA in October 2020 recognise P5's contribution to date and welcomes that WS1B will define the format of the NDP statement

The Form of Statement (FOS) for the NDP report to be published by DNOs from 2022 will be a key output of P5 in 2021. All requirements for the NDP as defined in the new licence condition will be considered, including indication of parts of the distribution system most suited to new connections and planned network investments for the next five to ten years. The FOS shall be developed with consideration of:

1) Stakeholder utility
2) Linkage with other reporting and any evolving requirements
3) DNO feasibility and practicalities of producing the NDPs

DNO discretionary publication of a Standard Network Capacity Report in July 2021 will be used to gather stakeholder feedback to help refine the NDP FOS. The ambition and expectation that further visibility of network capacity will be required going forward shall be recognised with the inclusion of stretching targets.

In line with WS1B's objective to optimise existing processes across the Transmission and Distribution boundary, P5 will scrutinise how the NDP content co-ordinates with transmission network capacity reporting so that the NDP provides optimal stakeholder utility. We will work with the TOs and the ESO to identify and support any opportunities for coordination with transmission reporting.

DNOs are required to undertake stakeholder engagement on the NDP in addition to other engagement including on the DFES. P5 will work with other WS1B products to develop optimised approaches for this stakeholder engagement cognisant of rationalising engagements to avoid engaging on too many occasions and possible stakeholder fatigue.

Background

P5 continues to seek improvements in network capacity reporting for signposting areas most suited to new connections and where there are network issues potentially benefitting from flexible services. It aligns with the workstream's objective of optimising whole electricity system approaches.

Plans for the implementation of the Standard Network Capacity Report developed through P5's work in 2020 have been affected by contemporary information on the scope of the Long Term Development Statement review, the ED2 Sector Specific Methodology and the new licence condition requiring DNOs to publish Network Development Plans, NDPs, in accordance with the Clean Energy Package. The NDP encompasses reporting on network capacity and therefore P5's learning and outputs can be used in the development of the form of the NDP statement.

Outcomes & Benefits

Outcomes:-

1) NDP Form of Statement
2) Sharing of good practice on the high-level process for developing NDP

Benefits:-

- Consistent NDP FOS and content so that stakeholders will recognise the same format of NDPs from all DNOs
- Consistent publication of the NDP so that stakeholders know where to find DNO NDPs
- NDP FOS which DNOs consider is practicable and can work towards when existing capabilities need further development.
- Defined good practice for the developing the NDP, including a commitment to share individual DNO methodologies when publishing each NDP.

Indicative impact for companies to implement

- Impact: Process change relating to the new licence condition requiring the publication of the NDP involving some existing network analysis and planning with new tasks to develop additional data and publish the NDP report biannually.
- Timing: the NDP Form of Statement shall be finalised by December 2021 to inform the first NDP publication in 2022 based on the 2021 DFES.
- Implementation Cost: Although DNO processes already encompass those expected to be required to develop the NDP, some extra activities will be required and there will be new work required to compile and publish the NDP. Additional resources may be required to support the publication of the NDP but these are not envisaged to be more than 1FTE per company per annum.

Dependencies

Ofgem's 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, P5's work will interface with P2's definition of single scenario.

Collaboration with Ofgem will be important to ensure alignment with the progress of the LTDS review.

Public Consultation:

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Publish Capacity Signposting Report developed through 2020 work.**	Support development and publication of Capacity Signposting Reports. Seek and process stakeholder feedback on reports.	10 months	Jan - Oct 21	Publication of reports (Jul 21) Take on feedback by Oct 21.	Obtain f/b on published reports.	ON Steering Group
B	**NDP Form of Statement**	Develop NDP Form of Statement to be used by DNOs. To reflect the scope of the new NDP licence condition and define the format of statement taking on board stakeholder engagement feedback.	12 months	Jan - Dec 21	Form of Statement template & end to end process (Dec 21)	Advisory Group. Ofgem.	ON Steering Group

P6 Operational DER visibility and monitoring

Description

Improvement in operational DER (Distributed Energy Resource) visibility is critical. Better awareness of DER in operational timescales will improve whole system network operation and resilience. Operational monitoring of DG and DER is required where those DG and DER provide services to the ESO or DNOs.

This product will define the needs cases for DER visibility and monitoring for the ESO and DNOs under a range of uses cases; define the functional specifications for these use cases; use these to derive a cost-benefit analysis framework for DER visibility and monitoring against the use cases; and undertake the cost-benefit analysis. Use cases will include, but are not limited to:

- A DER providing an ancillary service to a DNO and/or the ESO
    - The use cases will vary by the ancillary service market product specifications
- A DER not providing any services but considered a candidate for monitoring for enhanced system resilience

The use cases will articulate the data required by the DNOs and ESO, including but not limited to the fields:

- Resolution of data capture (seconds, milliseconds etc.)
- The means by which data should be transferred to the ESO and/or DNO and associated latency (ICCP links, half hourly data transfer etc.)
- The data parameters that must be captured (MW output etc.)
- The requirement or otherwise that the data be time synchronised with for multiple data users (ESO and DNOs)

Based on the use cases, the product group will investigate, develop and deliver the following:

- If the use cases and requirements vary due to DG and DER size and voltage connection.
- The number of real world examples that fall under each use case will be defined by each DNOs licensee area.
- Functional specifications based on the data specifications.
- Cost-benefit analysis frameworks, including the determination of the benefits and who they accrue to.

- Completed cost-benefit analysis.

As part of this work, this product will support the development of a functional specification for operational metering of DER that is providing flexibility services to DNOs and/or the ESO. This will be developed in response to stakeholder feedback from the Flexibility Consultation in 2020 that told us that operational metering is a barrier to participation in flexibility markets for smaller flexibility providers. The current level of monitoring is agnostic to the DER party type, and is different dependent on the voltage level the customer is connected to rather than the size of the asset itself. We are aware that this can cause issues for flexibility providers and we are looking to address these differences as part of our work on Operational Metering.

Background

In August 2020, Ofgem published a call for evidence on DG visibility, clearly signalling their intention to establish a clear policy on DG monitoring requirements. This work will support the development of this policy.

This is a new area of work in Open Networks that is seeking to articulate and define the use cases for visibility and monitoring of DER on the network and establish appropriate function specifications for them. This product will develop a cost benefit analysis for these use cases.

Outcomes & Benefits

This work will articulate the uses and needs for DG and DER visibility and provide meaningful input into the roll-out and specification of monitoring equipment DER sites.

Indicative impact for companies to implement

- Impact: This will be determined as part of the CBA
- Timing: This will be determined as part of the CBA
- Implementation Cost: This will be determined as part of the CBA

Dependencies

Ofgem's DG visibility consultation and any further publications on this.

ENA's Data Working Group

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Definition of use case variables**	Workshop to define and list all possible parameters and variables for DG and DER monitoring.	5 months	Feb - Jun 21	Agreed variables for use cases (Jun 21)	Advisory Group	ON Steering Group
B	**Agreement on use cases and volumes**	Workshops to define the specific articulations of uses cases. RFIs for all DNOs and the ESO to infill the volumes of examples against each use case.	4 months	Mar – Jun 21	Specific use cases and volumes thereof captured (Jun 21)	Advisory Group	ON Steering Group
C	**Development of functional specifications**	Workshops to define the functional specifications that would enable	2 months	Jun – Jul 21	Functional specifications against each use case (including	Advisory Group	ON Steering Group

		sufficient data capture and transfer against each of the agreed use cases.			operational metering for DSO and ESO Services) (Jul 21)		
D	**Cost benefit analyses**	(A) All network licensees to collaborate to define the quantitative and qualitative parameters for a CBA. (B) Undertake CBA against the articulated use cases.	5 months	Aug – Dec 21	Spreadsheet modelling the costs benefit analyses of rolling out monitoring against each use case (Dec 21)	Advisory Group	ON Steering Group

P7	Operational Data sharing – definition and recommendations

Description

This product will support and inform an upcoming licence condition to improve operational data sharing. This product will identify operational data and information that would be beneficial for network companies to share with non-network market participants, and minimum standards for doing so. Specific data sets to consider will be data network topology data, network configuration data, outage data, constraint forecasting data and historian data.

This product will be delivered using a phased approach. The focus on the initial phase will be on identifying existing datasets and areas for enhancement, under each of the four categories below:

- Capacity rating and configuration
- Outage data
- Constraint data
- Historical utilisation rates
- Operational forecasting (as per recommendations from 2020 WS1B P3's report on Operational Forecasting)

As part of this initial phase, this product will seek stakeholder input and feedback to identify the relevant use cases and benefits. This product will also review and consider operational data that international GB companies are sharing with their stakeholders.

Once the datasets have been agreed and defined, this product will then progress to subsequent phases, to identify the appropriate data sharing mechanisms and a proposal for implementation.

As part of these subsequent phases, this product will liaise with ENA's Data Working Group (DWG) to consider the Nation Energy System Map (that is being developed as part of the EDTF recommendations) as a potential sharing mechanism. Note that if data sets are not in a standard data definition across all companies, there will be a need undertake further work to commonly define these data sets.

Background

Ofgem has undertaken preliminary work to scope the possibility of a licence condition to address the limited sharing of operational data to market participants.

2020 WS1B P3's work on Operational Forecasting recommends considering options for sharing forecasting information with stakeholders. This product will build on the findings of this report, and agree necessary changes for the ESO, TOs and DNOs.

Outcomes & Benefits

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

Indicative impact for companies to implement

- Impact: Dependant on datasets and sharing mechanisms that are agreed
- Timing: Dependant on datasets and sharing mechanisms that are agreed
- Implementation Cost: Dependant on datasets and sharing mechanisms that are agreed

Dependencies

- ENA Data Working Group – This product will need to link in with DWG's ongoing work to develop the National Energy System Map (NESM) that is being developed as a platform/tool to share data with non-network organisations.
- Ofgem's consultation on DG visibility – This product will review findings of this consultation to feed into the work.
- Ofgem's consultation on Key Enablers and LTDS – This product will link in with any findings/recommendations from Ofgem on the LTDS work to ensure alignment and/or avoid duplication of effort.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Phase 1** **Identification of information to share**	**[A]** Review information sharing use cases from network companies outside GB [B] Information gathering from market participants on what is useful. [C] Identification of where data sharing is already happening but could be enhanced. [D] Identification of work done to improve internal data exchanges and assess feasibility of sharing externally through triage process.	5 months	Feb – Jun 21	Shortlist of identified and well specified datasets and potential use cases and benefits (Jun 21)	Use of advisory group to assess users' needs	SG
B	**Phase 2** **Design of sharing mechanisms**	Evaluation of sharing mechanisms, including CIM and the Network	4 months	Mar – Jun 20	Proposal outlining options for mechanisms with	AG	SG

		Agreement on sharing mechanism			a recommendation (Jun 21)		
C	**Phase 3** **Governance review**	Review options for implementation and enduring governance of operational data sharing. This should include code governance and licence conditions.	3 months	Jul -Sep 20	Proposal for implementation including recommendation on governance arrangements (Sep 21)	AG	SG

Workstream Activities

There are a number of products from 2020 that do not have any deliverables or development activity identified for 2021. This includes products such as P1 Investment Planning, P3 Real Time Data Exchange and P4 Data Exchange in Planning Timescales. The workstream will be responsible for monitoring the ongoing external initiatives and trials that relate to these product areas to keep on top of industry developments that may require further development work in Open Networks in subsequent years.

It is to be noted that we have not allocated any resources on these products and are not expecting to make any changes in 2021. Should any changes be required in 2021, this will be considered as additional scope and will be reviewed in light of other priorities with approval from the Steering Group.

P1	**Investment Planning**

Description

This product will be delivered through monitoring activities delivered via WS1B representatives. WS1B will continue to monitor Ofgem developments on the CAM process and the Pathfinder projects. WS1B will undertake reviews at the milestones identified below.

Milestone	Dependency/linkage	Best view of timing
Ofgem proposal on CAM	Ofgem position paper	Q2 2021
Completion of ESO pathfinder for Pennines area	ESO Pathfinders	Q2 2021

Background

This product was started in 2018 and was further developed during 2019 and 2020 taking learnings from the pathfinder projects to put in place a Whole System methodology for the delivery of efficient and economic investment planning across distribution and transmission networks. This methodology has been developed based on learnings from RDPs, Pathfinder projects and the framework currently being used by the ESO to compare potential network solutions and other non-network options through a networks options assessment (NOA) process.

This methodology and the supporting planning processes have been documented in the form of an Engineering Recommendation (EREP) in 2020 and WS1B will continue to undertake reviews of upcoming developments to ensure that the CBA methodology is fit for purpose.

Outcomes & Benefits
The ability to leverage a broader range of solutions to meet the needs of the electricity system and enable the most effective whole system solutions to be implemented.

P3 Real Time Data Exchange and Operational Forecasting

Description

Over the years, this product has documented learnings on data exchange and forecasting based on the RDP projects.

This product will be delivered through monitoring of these ongoing RDP projects. This monitoring will be undertaken via WS1B representatives who will also provide feedback and input into these RDP projects. WS1B will undertake reviews at the milestones identified below.

Milestone	Dependency/linkage	Best view of timing
Service terms and conflicts principles agreed	RDPs	Q2 2021
High level technical solution design	RDPs	Q4 2021
Operational forecasting and associated data exchanges	RDPs	Q4 2022

Background
Using learnings from the ongoing RDPs, this product has documented preferred methods for real-time data exchange and operational forecasting to support whole system activities including Service Conflict Management, Connect & Manage and Operational Intertripping of DER.

Outcomes & Benefits
Well defined and tested solutions will be available for use where greater ESO-DSO interaction is required. Enhanced ESO-DSO system control and coordination.

P4 Data Exchange in Planning Timescales

Description

This product will be delivered through monitoring of the code modifications that were raised in 2020 based on previous work and monitoring of other related initiatives. This monitoring will be undertaken via WS1B representatives. WS1B will undertake reviews at the milestones identified below.

Milestone/Deliverables/Other initiatives	Dependency/linkage	Best view of timing
GC0139 – Consultation & its' outcomes	A consultation is planned by the Grid Code working group on the proposals. WS1B will continue to monitor and steer as required.	Feb 21 for consultation launch – This is our best view of dates and these will be driven by

		progress of these working groups. As and when consultation outcomes are published.
DCRP/MP/20/04	This will result in changes to the D code to reflect the data exchanges identified through WS1B P4. An EREC will capture the details of this proposal. WS1B will continue to monitor and steer as required.	May 21 – This is our best view of dates and these will be driven by progress of these working groups.
Any related initiatives taking forward work on CIM governance.	Inform ongoing discussions from an electricity networks perspective.	Not known yet.

Background

In previous years, this product identified enhanced data exchanges required to support network planning. These proposals are being taken forward through code modifications (GC0139 and DCRP/MP/20/04).

Outcomes & Benefits

Improved data transfers and a more informed approach across network companies for future data exchange mechanisms that will facilitate efficient whole electricity system planning.

Workstream Assumptions

The key assumptions for Workstream 1B are noted below.

Resources

- Sufficient resources will be deployed by each of the ENA member organisations to deliver the products in the timescales defined.
- Named resources will be identified by each of the ENA member organisations and these will be allocated in product working groups.
- Additional resources from the ENA member organisations will be engaged from time to time to provide subject matter expertise on more specialised knowledge areas.
- No product teams have been assigned to take forward the products that require monitoring activities (P1, P3, P4) as these will be undertaken by the workstream. Should further work be required in 2021, this will be treated as additional scope that will need to be reviewed in light of other priorities.

Workstream 2 –Customer Information Provision & Connections

Introduction

The customer focus in Workstream 2 has concentrated on visibility of data and process improvements through the application, connection and operations processes. We will continue to build on the outcomes that we have delivered in previous year, including the System Wide Resource Register which has now been codified to become the Embedded Capacity Register and on our Queue Management and Interactivity Processes.

In addition, this year we will start to look connection agreements with a view to review clauses that relate to constraints to identify opportunities for making these more specific and consistent. Separately there will be a review of the User Commitment Methodology for transmission work.

Workstream Objectives & Customer Benefits

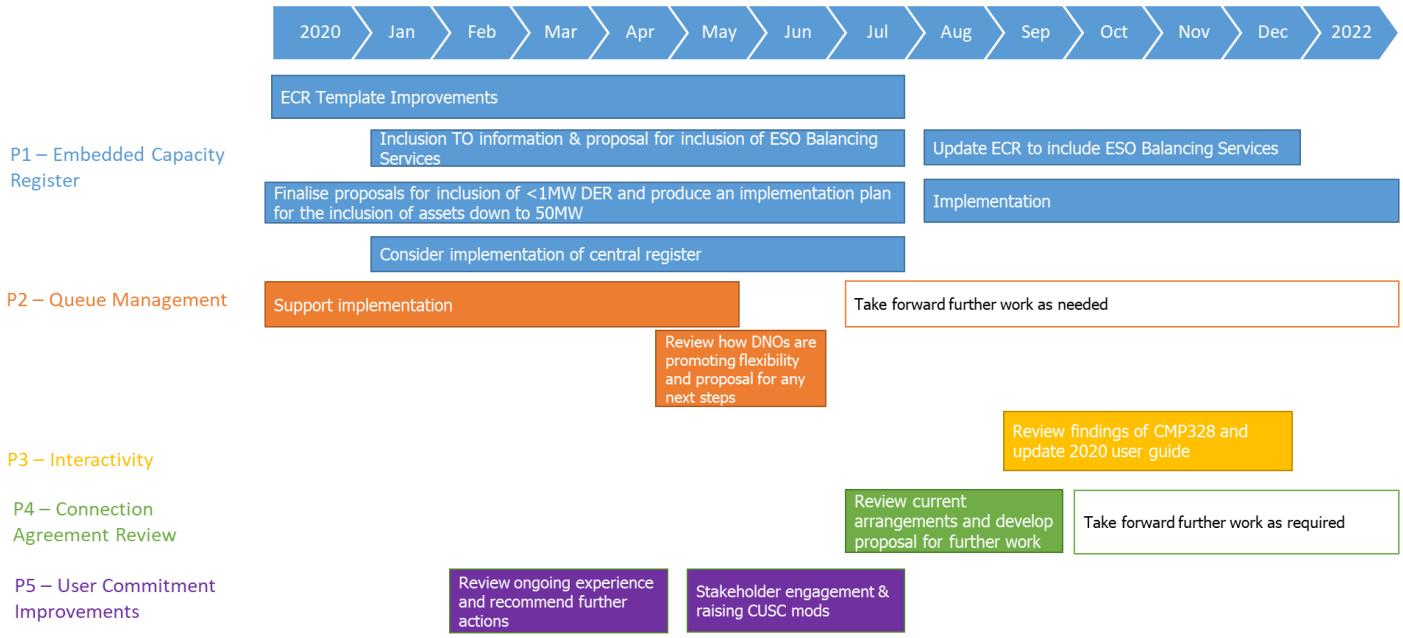
This workstream will continue to deliver improvements to the customer connections process, making it easier and more efficient for customers to connect to the network through the work on Queue Management and Interactivity. In addition, this workstream will proactively identify further opportunities to streamline sections of the connections agreement, making it easier for customers to connect. This workstream will also review connection agreements and offers in light of industry developments and review the current User Commitment Methodology (set out under CUSC).) for potential barriers for customers wanting to progress projects.

For information provision, we need to ensure that we are delivering:

- Benefits to customers of enhanced information provision to aid them through the connections and contracting processes and facilitate the realisation of value for their connected technology
- Information to potential 3rd party market facilitators/makers to allow the realisation of value outside direct DSO contracted services (as highlighted in the Flexibility Workstream)
- Information sharing between transmission and distribution networks to benefit customers through the most cost-effective planning and operation of networks.

Workstream Scope

The diagram below summarises the scope and key activities for WS2 in 2021.



Workstream Products

P1	Embedded Capacity Register

Description
This product will progress recommendations from the Dec 2020 report and in addition, will look at inclusion of transmission services and reinforcement data for distributed resources.

Background
As per the commitment made in 2019, this product developed and implemented the Embedded Capacity Register (previously referred to as the System Wide Resource Register) in 2020 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 20 via DCP350 that codified the requirements previously identified. From Jul 20 onwards, this product continued to explore further improvements to this register, primarily the inclusion of resources <1MW. The scope for 2021 is to take these recommendations forward and working on lowering the threshold to >50kW including investigating any format changes required to facilitate this.

Outcomes & Benefits
The ECR provides industry a database of more accurate and complete information that can benefit multiple parties including networks, asset developers and aggregators.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)

- Impact: Process change
- Timing: ED1/ED2 Depending on scale of change, the implementation of outcomes may extend to ED2. Inclusion of ESO Balancing Services into the ECR Template is likely to be more complex with additional consultations and regulatory review periods imposed. As such full ESO adoption is not likely for a period of 9 months post finalisation of the templates in July.
- Cost: This is likely to be a high cost which will need to be explored as part of the feasibility work,

Dependencies

ENA's Data Working Group

DCUSA proposal in A below will be aligned with ongoing D code changes (DCRP/MP/20/04) to ensure that data on technology types is collected and reported consistently.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	ECR Template Improvements – Complete the ongoing process to improve the ECR template including data fields and definitions.	DCUSA process to present and approve changes	Ongoing	Aug 21	Revised ECR template with additional data fields. (Aug 21) Adoption of new template by DNOs. (Sep 21)	Views sought on changes by DCUSA Panel.	WS2
		Switch over to updated template.	9 months	Jan – Sep 21			
B	Implement proposals to include ESO Services and Transmission Reinforcement information in ECRs.	Work to link to Tx reinforcements (e.g., Transmission Works Register)	7 months	Jan – Jul 21	Updated ECRs to include additional information or links to relevant information held by TOs. (Jul 21) Finalise proposal for inclusion of Balancing Services information (Jul 21)	TBA	ON Steering Group
		Finalise proposal to include ESO Balancing Services information	7 months	Jan – Jul 21			
		Stakeholder engagement and implementation of ESO Balancing Services changes	9 months	Aug – Apr 22	Updated ECR to include ESO Balancing Services information (Apr 22)		
C	Extend ECR to include Assets <1MW	Finalise proposals to include further DER resources including	7 months	Jan – Jul 21	Process to develop format	ON Advisory Group	ON Steering Group

		DNO costs to implement.			and proposal for inclusion of <1MW.(Jul 21) Implementation Plan for inclusion of assets down to 50kW (Aug 21)		
		Develop and enact proposals to source ECR data for additional assets. Note: Dec 21 is a placeholder and implementation timescales will depend on the proposals and implementation impact	5 months	Aug – Dec 21 (TBC after detailed proposal - Placeholder)			
		Develop and take forward further code changes relating to additional assets.	9 months	Apr – Dec 21			
D	Consider implementation of Central Register	Consider implementation of database solutions for ECRs.	7 months	Jan – Jul 21	Recommendations on database solutions (Aug 21) Recommendations on central register (Sep 21)	ON Advisory Group	ON Steering Group
		Consider implementation of a central ECR.	6 months	Apr to Sep 21			

P2	Queue Management

Description

This product will continue work delivered under 2019 & 2020 WS2 P2 to take forward implementation of the Queue Management milestones and processes set out in the 2020 user guide. In addition, this product will undertake a review in Q2 2021 of approaches used by network companies to promote flexible resources in the connections queue. This aim of this review will be to identify whether any further steps can be undertaken by Open Networks to standardise the approach to promoting flexible resources in the queue (e.g. via contractualising any requirements placed on the promoted resource via connection or flexibility service contracts). As part of this review, the product team will look at any examples that may exist or potential scenarios of how DNOs promote flexible resources in the queue to inform and develop recommendations. Depending on the results of the review and nature of the recommendations, we may need to engage additional expertise to address legal, commercial and any other aspects that we currently do not have expertise for within the product team.

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 will build on this work and

will review how DNOs have been promoting flexible resources and will identify any further work that might be needed to standardise these approaches.

Outcomes & Benefits

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

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)

- Impact: Process and contract change
- Timing: ED1/T2
- Cost: Scale will vary as scale of implementation change will vary and will depend on volume of contracts.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Support implementation of QM including CUSC modification, and development of connection offer terms	Provide any support needed to progress CUSC modification.	Ongoing	Jan – Dec 21	N/A	N/A	N/A
		Provide support across DNOs on other aspect to ensure consistent approaches to QM.	6 months	Jan – Jun 21			
B	Undertake review of how DNOs are promoting flexible resources in the connections queue	Undertake review of how DNOs are promoting flexible resources in the connections queue. Identify any areas for improvement, opportunities for standardisation (through contractualisation or otherwise) or any barriers.	2 months	May - Jun 21	Draft implementation plan and Open letter including a stakeholder engagement plan. (Feb 21) Updated user guide with agreed wording across all companies (Jun 21) Proposal for any next steps to further standardise promotion of flexible resources in the		
		Identify any further steps needed for improvement.	3 months	Jul – Sep 21			

					connections queue. (Sep 21)		

P3	Interactivity

Description
This product is a continuation of 2019 and 2020 WS2 P3 and will review outcomes of CMP328 and embed them into the interactivity processes developed in 2020.

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 previous years. In 2020, we set out processes for conditional interactivity, T-D and D-D interactivity for T led constraints. A decision was made to put the work on hold for D led constraints as CMP328 was underway and the decision was likely to impact interactivity processes. This work will review the decision from CMP328 and update interactivity processes accordingly for D led constraints.

Outcomes & Benefits
This product will align processes, to give more consistency and harmonisation across network companies, such that customer experience is improved.

Indicative Impact for network companies (to current process/infrastructure and associated timings & costs)

- Impact: Process changes, with potential smaller scale changes to systems
- Timing: 2021 implementation
- Cost: <£0.5M per DNO/TO/iDNO

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Review findings on CMP328 against interactivity processes developed in 2020. Update as needed to suit CMP328 decision for D led constraints.	Review findings on CMP328 against interactivity processes developed in 2020. Update as needed to suit CMP328 decision for D led constraints.	4 months	Sep – Dec 21	Paper outlining impact of CMP398 on interactivity processes (Sep 21)Updated user guide (if required) (Dec 21)	Advisory Group Others as needed	Steering Group

P4	Connection agreement review

Description

This product will review current DNO connection agreements (offer and agreement post-energisation) in light of more recent smart grid developments such as LFDD, ANM connections, Flexibility services, relevant code changes (Grid Code such as GC019, Clean Energy Package and the associated licence changes, D code changes) etc. to ensure that it is fit for purpose for the customers (generators and storage) as well as the network companies. In particular, this product will look at the rights and obligations of all parties in relation to curtailment of exports for standard generation connections. This product will undertake a scoping exercise in Q2 2021 which will be followed by a go/no go decision for further work.

Background

This is a new development area under Open Networks that has been raised as an area for potential improvement.

Outcomes & Benefits

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

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)

- Impact: Process and contract change
- Timing: ED1
- Cost: Scale will vary as scale of implementation change will vary and will depend on volume of contracts.

Dependencies

WS1A P3 Principles to review legacy ANM contracts

GC0147 - Last resort disconnection of Embedded Generation – enduring solution

To be identified as part of the scope development.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Scope proposal for a go/no go decision	Review current arrangements being used by DNOs to further understand problem statement and identify options for improvement. Develop detailed scope proposal for a go/no decision.	3 months	Jul – Sep 21	Scope proposal for further work. (Jun 21)	Advisory Group DER Connections SG	Steering Group
Further activities to be set out as part of the scope proposal above.							

P5	User Commitment Improvements

Description & Background

The current methodology for User Commitment to transmission works is captured in the CUSC Section 15. CUSC 15 currently covers transmission securities and liabilities. This was introduced in 2013 to provide a more equitable system for calculating customer liabilities should customers modify or cancel projects such that network reinforcements were no longer required.

The User Commitment methodology may be providing a significant barrier to the progression of certain customer projects. For example, customer liabilities for transmission works can often be disproportionately large for smaller projects and/or for projects which are connected remote from Main Interconnected Transmission System (MITS) nodes.

It is proposed to review the wider experience of network companies and stakeholders in use of the User Commitment methodology and, if merited, recommend actions to modify the methodology. . The workstream will consider the best way to engage relevant parties (e.g. TCMF) to review this experience. Any changes to the methodology may ultimately require a CUSC modification and this is one of the options that will be considered.

Outcomes & Benefits

Changes to the methodology could remove barriers to entry for customer generation projects that are not currently able to be progressed due to their proposed location.

Indicative impact for companies to implement

- Impact: This will depend on the recommendations made.
- Timing: This will depend on the recommendations made.
- Implementation Cost: This will depend on the recommendations made.

Dependencies

Ofgem's Access SCR connection boundary for distribution – Link in with discussions

Other dependencies will be identified as part of the initial review.

Public Consultation

Not part of ON product as any detailed change proposal would be consulted through a CUSC mod.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Review ongoing experience of User Commitment Methodology and agree further actions.**	• Obtain DNO, ESO, TO and User experience of the methodology. • Summarise the shortfalls of the approach and the numbers of customers who are affected. • Identify areas that should be updated and agree approach, including	3 months	Feb - Apr 2021	PowerPoint / Report summarising shortfalls and recommended areas to update. (Apr 21)	ON Advisory Group Other relevant stakeholder parties (e.g. TCMF)	ON Steering Group

		potential stakeholder engagement (e.g. propose CUSC mod)					
		• Stakeholder engagement	2 months	May – Jun 21	n/a	To be determined as part of this product	n/a
		• Raising CUSC modifications	3 months	May – Jul 21	n/a	n/a	n/a
Further steps as per recommendations.							

Workstream Assumptions

The key assumptions for Workstream 2 are noted below.

Resources

- Sufficient resources will be deployed by each of the ENA member organisations to deliver the products in the timescales defined.
- Named resources will be identified by each of the ENA member organisations and these will be allocated in product working groups.
- Additional resources from the ENA member organisations will be engaged from time to time to provide subject matter expertise on more specialised knowledge areas.

Workstream 3 – DSO Transition

Workstream Objectives

The aim of this workstream is to set out a clear plan giving visibility of actions as well as key decisions that are required to progress the development and implementation of the least regrets pathway to Distribution System Operation.

For the first time in Q3 2021, we will publish DNO-level data in the DSO Implementation Plan and this will reflect the ED2 Business Plans submitted in July. This will enhance the level of visibility to stakeholders, as requested in the 2019 consultation responses.

WS3 will continue to fulfil an overarching role to monitor DSO development across Open Networks and the wider industry and will act as the focal point for driving actions that are required for the transition in the short (ED1), medium (ED2) and long (ED3 onwards) timescales.

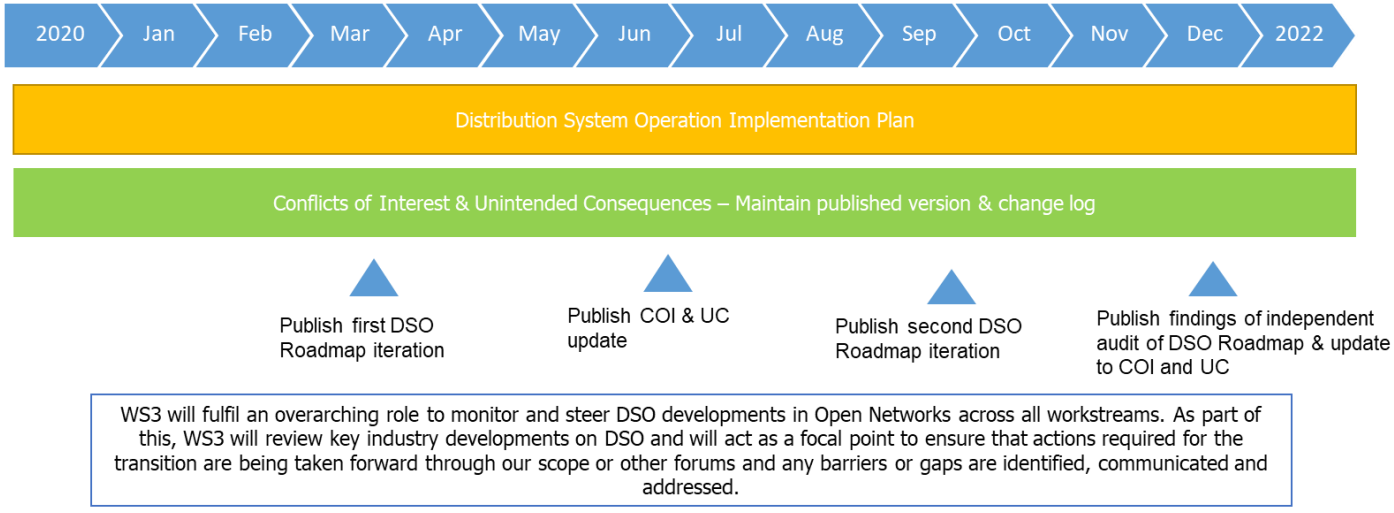
In this capacity, WS3 will also serve as a forum for discussion on key DSO related outcomes including upcoming policy positions such as Ofgem's ED2 Sector Specific Methodology Decision, Key Enablers and Government's Energy White Paper. As part of this overarching role, WS3 will consider how the DSO related outcomes are taken forward by the various workstreams in the Open Networks project. WS3 will coordinate discussions with other working groups progressing discussions on DSO (such as Ofgem's RIIO- ED2 Overarching Working Group (OAWG) sub-group for DSO, Ofgem's RIIO ED2 Group including Business Plan Data Template groups and others) to ensure coordination and alignment of outcomes.

Workstream Scope

There are 2 key products within WS3:

- DSO Implementation Plan
- CoI & UC Risk Register Maintenance & Update

In addition, WS3 be responsible for reviewing and maintaining the DSO functions and definitions, ensuring that is reflective of latest ON and industry developments.



Workstream Products

P1	Distribution System Operation (DSO) Implementation Plan

Description

This product will update the DSO Roadmap and Implementation plan in Q1 2021 and in Q3 2021 to provide a view of activities that are being undertaken to progress DSO functionality. In addition, this product will take forward stakeholder feedback on the DSO Roadmap to improve accessibility of the tool.

Key changes to improve accessibility for the Q1 publication are:

- Pop-up windows – Replace pop-up windows with the box at the bottom for readability.
- Search function – Design and implement extended search to find relevant steps across the roadmap, including an additional page with an overview of the search function
- Data extraction – Develop a data extraction tool that will allow users to download all underlying data.

Following stakeholder feedback, we have made a decision to increase the granularity of available data and give full visibility of all the individual company actions as part of the Q3 update. This will allow stakeholders to see details and progress being made by individual companies on the actions in the DSO Roadmap.

In addition, we will also undertake an independent audit of the Q3 publication in Q4 2021 and will publish the findings. The scope of this audit will be to review and challenge the activity presented in the roadmap and publish outcomes for transparency.

Delivery Approach

This product will be developed with input from WS3 members on behalf of their respective companies. A prospective new ENA team member will coordinate this input from members to feed into the next iterations of the deliverables with external consultancy support as needed.

Key Deliverables

- Updated DSO Roadmap (Q1 & Q3)
- DSO Implementation Plan (Q1 & Q3)
- Findings from Independent audit of DSO Roadmap (Q4)

Outcomes & Benefits

This product will provide a consolidation of outcomes from ONP as well as industry to set out a clear pathway to the implementation of distribution system operation in the short, medium and longer term which will help to provide greater visibility to industry as well serve as a tool to monitor progress and identify gaps to delivering DSO functionality. It will only be a snapshot as at the time of publication. A spreadsheet format of the DSO Roadmap will be published alongside the Updated DSO Roadmaps.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)

As this product is consolidating outcomes/actions from other key areas of work to provide greater visibility, all impacts will be considered by the individual products/initiatives in the form of a CBA before the outcomes are mapped on the Implementation Plan.

Public Consultation

No – Consultations will be undertaken by individual products and initiatives before key outcomes are mapped on to the Implementation Plan. There will however be substantial stakeholder engagement to get input on the format to ensure that information is accessible and digestible. We will be providing visibility of stakeholder events/webinars at the start of the year on the ENA Events page.

P2	Potential Conflicts of Interest and Unintended Consequences

Description
This aims of this product are to further understand and investigate potential conflicts of interest and unintended consequences raised by stakeholders. This product will work with stakeholders to further understand these conflicts/unintended consequences and will identify appropriate mitigation measures, monitor progress made on these measures and provide industry visibility of this.

This product will ensure that developments being taken forward through ON are not leading to unfavourable outcomes for any particular actors in the energy landscape and in particular vulnerable customers. This product monitors ongoing industry projects such as the Smart and Fair project to ensure alignment on principles and recommendations.

Stakeholder input is key for helping us shape this product and the register is open for comments and input from all on our website.

This product will remain an ongoing activity within Open Networks with outputs captured in the form of a risk log that is published and is open for industry to feed into. The first update will be in Q2 2021 followed by a subsequent update in Q4 2021.

Delivery Approach
This product will be led by an ENA Technical Lead who will coordinate input across WS3 and will work with other ON workstreams as well as key stakeholders (including Ofgem, T.E.F projects etc.) to review and update this register. We expect to review this at least every 6 months and will present this to all Workstreams to identify any new/revised risks as the project progresses.

ENA will involve the Safeguarding group in future iterations, including the 2021 Q2 update, of the Potential Conflicts of Interest and Unintended Consequences register

Key Deliverables
The key deliverable will be the risk log that is maintained and updated on the ENA website through regular WS3 reviews and stakeholder engagement sessions. A change log will be maintained alongside this to ensure traceability.

- Updated CoI and UC Register (Q2 & Q4)

Background
Based on stakeholder feedback, we made a decision in 2019 to introduce this as an ongoing activity/product in the Open Network project 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 focussed 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 contains a mitigation strategy and associated actions for every risk. Risk owners are required to review and update their risks on a quarterly basis; these are quality checked by ON. Before any risks are closed feedback is sought from ON Advisory Group. Heatmaps were introduced to the Register in the Q3 2020 release – this enables stakeholders to focus on the greatest risks and monitor progress more easily.
The product team work collaboratively with the ON Comms Team (WS5), and a number of stakeholders, to understand how we can improve both engagement and the accessibility of the risk register content.

Outcomes & Benefits
This product will provide visibility to industry of the work that is being progressed to address risks and will ensure fairness and transparency in decision making to ensure right behaviours for all players in the market to ensure best consumer outcomes.
There are a number of risks identified to ensure that vulnerable customers are taken into account appropriately and we will continue to consider the impact on vulnerable customers in our work.

Public Consultation

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

There is no public consultation planned for this and we will be undertaking regular stakeholder engagement alongside and will be maintaining and open and transparent approach. During Q1 2021 we have carried out in-depth stakeholder engagement though the Advisory Group and one-on-one discussions with highly active stakeholders.

Workstream Assumptions

The key assumptions for Workstream 3 are noted below.

Resources

- Sufficient resources will be deployed by each of the ENA member organisations to deliver the identified activities.

Existing Statutory and Regulatory Policy

- It is recognised that existing energy systems policy is developing and over the next few years, this may change in areas that impact the scope of the Open Networks project. Workstream 3 will seek to make progress against the existing energy systems policy and framework. Where longer term solutions are being considered, work will not be constrained by existing policy as it is assumed that this may evolve.
- It is assumed that we will continue to engage with BEIS and Ofgem to address relevant statutory and regulatory policy that may be required for DSO implementation.

Workstream 4 – Whole Energy Systems

Workstream Overview

ENA Open Networks Work Stream 4 ("WS4") is now in its third year of delivery in 2021. WS4 was created in response to stakeholder feedback in early 2019 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 and for tackling whole system challenges.

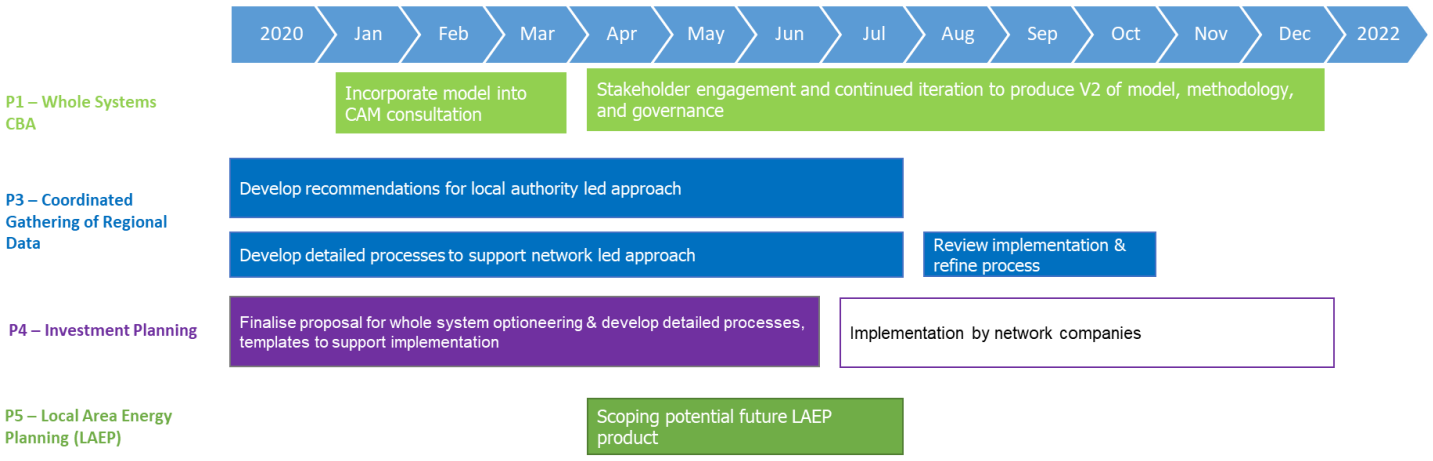
This year, we have made the decision to facilitate WS4 as a join workstream between Open Networks and ENA's Gas Goes Green project that is looking at the future of gas and leading the transition. The focus of WS4 will continue to be on delivering tangible whole system change in the shorter term and this dual governance will help us better align the improvements that we deliver with the longer term vision for gas.

Workstream Objectives

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 include to:

1. Explore the presumed consumer benefit in whole system thinking
2. Explore the challenges for network companies working across gas and electricity and support the development of frameworks that facilitate working across the whole energy system.
3. Use a focus on near term, tangible issues to:
    a. Deliver tangible benefits to consumers
    b. Support the development of frameworks and processes that facilitate working across the whole energy system
    c. 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.
4. Capture learnings from industry including the trials that were scoped and commissioned for real time operations and forecasting in 2019.

Workstream Scope



Workstream Products & Timeline

P1	Whole System CBA

Description

A whole system cost-benefit analysis (CBA) is seen a fundamental to ensure optimal whole system outcomes in the interests of consumers are made.

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 using the Ofgem sector specific CBA models as a starting point. A wide range of stakeholders were engaged in the development, including energy network companies, Ofgem, BEIS and local authorities. Engagement also took place through the ENA Open Networks Advisory Group, Gas and Electricity Regulation Committees, ENA Environment Committee and ENA Community Energy Forum.

Benefits

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

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

It is widely recognised that well thought out and fully analysed Whole System decisions will lead to better outcomes for consumers overall.

Indicative impact for companies to implement

- Impact: Network companies will be familiar with the overarching process, but will need to collaborate with stakeholders to generate a more diverse range of whole system options.
- Timing: Option development may take longer due to the need to consider options outside their network.
- Implementation Cost:

Dependencies

- WS1A P1
- WS4 P4
- Hydrogen Programme Development Group (HPDG)

Public Consultation

The whole system CBA tool has been designed in a way that it can assess many inputs on cost and benefits to stakeholders, including non-network stakeholders. During Q1 2021 we collected feedback from users of the tool on ways to improve its functionality and capability, with the possibility of a further version being released towards the end of 2021. We will include this feedback in our review, confirming whether the current CBA tool can support the inclusion of cost and impacts of ANM to wider stakeholders or if not, determine if it is practicable to incorporate this in v2 of the CBA.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval

A	**Coordinated adjustment mechanism**	Work with Ofgem to incorporate model into Coordinated Adjustment mechanism (CAM)	3 months	Jan – Mar 21	Model incorporated into CAM consultation (Mar 21)	Network companies Advisory Group Regulation Committee	ON & GGG Steering Groups Ofgem
B	**Continued iteration – Version 2.0**	Engagement on scope for substantial updates (Version 2.0), including: Lessons learnt from 2020 Seek opportunities to test product, including: • Open Networks projects • Stakeholders engaged during 2020 with relevant projects • Ongoing or upcoming projects within ENA members • Updates to model and methodology based on first uses • Evaluating parameters and value levers where these are not or cannot be quantified • Real option valuation • Expanded scope (e.g. waste, water, heat, transport) Stakeholder engagement to encourage wide use of model, including setting up of User Forum Engagement with first users, including training, guidance and feedback Explore ways of using model to aid policy thinking (e.g. HPDG)	9 months	Apr – Dec 21	List of potential topics for further product development (Jun 21) Set up User Forum (Aug 21) Version 2.0 – Updated version of model, methodology, and database – to incorporate changes based on first uses and stakeholder feedback (Dec 21) Governance document (Dec 21)	Model users	ON & GGG Steering Groups Ofgem

		Enduring governance discussions, linking in with wider ENA discussions on governance and change management across ON products.					

P3	Coordinated Gathering of Regional Data

Description

This product will undertake further actions to support the longer-term local authority led approach that was identified in 2020. In addition, this product will complete the development of the shorter-term network led approach for adoption by Electricity and Gas companies.

Background

In 2020, this product identified longer and shorter-term options to facilitate coordinated approaches across electricity and gas companies in gathering data from local authorities for the purposes of network planning.

Outcomes & Benefits

Consistency in data gathering delivers benefits to stakeholders (e.g. Local Authorities) in having consistent formats and processes to follow for providing data. Network companies can have more certainty in building processes against standard data sets.

Industry benefits from consistent data being used across multiple parties.

Indicative impact for companies to implement

- Impact: Process development and changes to existing processes. Sharing of regional data currently collected by networks in consistent format.
- Timing: TBC
- Implementation Cost: BAU (final process may have associated costs to manage data repository)

Dependencies

Reliance on engagement with local authorities

ENA Data Working Group – Need to ensure any linkages to the National Energy System Map (NESM) are identified and managed.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Local Authority led data alignment**	Continue to liaise with Ofgem/BEIS to support progress on Local Authority led data alignment approach to regional data gathering Undertake further phases utilising Local Authority consultation where necessary	8 months	Nov 20 – Jun 21	Local Authority led data alignment recommendations paper (Jun 21)	Advisory Group Bespoke Local Authority Consultation	ON & GGG Steering Groups

B	**Network led data alignment**	Seek support from network companies to share regional data on bilateral basis, as per 2020 proposal.	1 month	Jan 21	Detailed processes and templates for adoption (Jun 21) Repository of regional data. (Jun 21) Network led regional data gathering summary report (Oct 21)	Advisory Group	ON & GGG Steering Groups
		Develop detailed processes, template etc. and populate with data.	5 months	Feb 21 – Jun 21			
		Monitor progress and summarise findings in report, recommending future implementation across industry.	4 months	Jul 21 – Oct 21			

P4	**Investment Planning**

Description

This product will build on the work completed in 2020 and will develop further detailed processes in 2021 for implementation.

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.

Outcomes & Benefits

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

Indicative impact for companies to implement

- Impact: Process change
- Timing: TBC
- Implementation Cost: BAU (Final scheme will have implementation costs identified prior to approval.

Dependencies

- Emerging LAEP Processes.
- Whole System CBA can be used to analysis whole system options and support follow on work.

Public Consultation: Bespoke LA Engagement							
Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Develop proposal for Whole System Optioneering.** Develop an outline proposal to progress (highlighting scope, potential cost, benefits, scale of change etc.) and seek approval.	Complete trials to identify whole system solutions that meet LA ambitions and objectives Collate feedback from all completed trials Energy Network workshop to review and agree short-list of options for an enduring whole energy system service for Local Authorities. Prepare a LA engagement plan, factoring in other relevant events and Comms. Consult UK Local Authorities on the short-list of options for a whole energy system optioneering service. Document findings and proposal for approval from the Steering Groups and, highlighting scale of impact.	8 months	Nov 20 – Jun 21	Outline proposal to progress Whole System Optioneering, indicating scope, potential cost, scale of change and clarifying linkages with LAEP (Jun 21)	Advisory Group Bespoke Local Authority Consultation	ON & GGG Steering Groups
B	**Detailed process development** Undertake detailed process development for agreed approach.	Develop detailed processes, template etc. to take further develop and implement the Whole System Optioneering approach.	7 months	Jan 21 – Jul 21	Detailed processes and supporting templates and committed timescales for implementation. (Jul 21)	Advisory Group	ON & GGG Steering Groups
C	**Implement new process** Subject to company and Steering Groups approval	Monitor progress		Jul 21 onwards	As set out in B	Advisory Group	ON & GGG Steering Groups

P5	Local Area Investment Planning

Description

A report on the scope of future work to establish a framework for the energy networks role in Local Area Energy Planning (LAEP) will be created. This report will form the basis of a go/no-go decision to commence work to develop the framework. The framework could potentially provide a coherent and consistent approach for energy networks' contributions to Local Area Energy Plans, enabling networks to fully endorse an LAEP, and for the LAEP to be credible at a wider national level. Alternatively it could provide a mechanism for best practice sharing of approach across GB.

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.

This scoping work will consider the options and recommend a preferred way forward for a network led LAEP framework to address these issues. The ENA have already engaged Ofgem and BEIS to understand the work they are carrying out on LAEP and have been reached out to by Innovate UK regarding LAEP. BEIS in particular agrees that urgent action is required to avoid local authorities inefficiently using scarce resource on low-value activities. An initial workshop with ENA members, ESC, BEIS, and Ofgem indicated strong support for the work, although they recognised that further workshops would be needed to clarify the scope of any future work.

Benefits

A detailed understanding of the scope of a future ENA LAEP framework product(s) will provide the Steering Group with a clear understanding of the resourcing and timescale requirements involved to allow for an informed go/no-go decision.

Once approved, the ENA can communicate the work to LAs to ensure future work can be sympathetically managed.

Indicative impact for companies to implement

- Impact:
  - Member companies will need to provide resource to carry out scoping activities and information on current LAEP projects they are involved in.
- Timing: 3 months (April-June)
- Implementation Cost: Time spent by resources provided by member companies.

Dependencies

- Not dependent, but this work will need to coordinate with the Energy System Catapult work on LAEPs
- Not dependent, but results from WS4 P4 (Investment Planning) engagement of Local Authorities could inform scoping activities.

Public Consultation

- Local Authority input into the scoping process will be vital

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Scoping of future product(s)**	Work with member reps to collate information on current LAEP projects and produce a recommendation for a network led LAEP framework – for a Go/No Go decision by the Steering Groups. <u>Indicative programme:</u> April: Agree objective, and high-level approach May: Member workshops to identify options and produce recommendation June: Identify resourcing and other requirements and submit SG paper.	4 months	Apr – Jul 21	Report on the scope of potential future ENA LAEP product(s) (Jul 21)	Network companies Advisory Group Innovate UK ESC	ON & GGG Steering Groups

Workstream Assumptions

The key assumptions for Workstream 4 are noted below:

- Sufficient resources will be deployed by each of the ENA member organisations to deliver the scope.
- Consultancy support will be engaged for WS1B P1 Whole System CBA. Should additional consultancy support be required, this be treated as additional cost in light of the overall budget and will require approval from the ON and GGG Steering Groups.

Workstream 5 – Communications and Stakeholder Management

The ongoing COVID-19 situation has meant that we have had to adapt our programme of engagement, particularly where face-to-face meetings were planned. For 2021 Open Networks is holding digital events where possible in place of face-to-face meetings, and will be reviewing this in accordance to Government guidelines towards the end of the year.

Workstream 5 (WS5) will be working hard to ensure these digital events are set up to share as much information as possible and maximise stakeholder input to its full extent. WS5 will be working with other groups internally at ENA to share best practice on the best form of digital engagement and is always open to feedback from stakeholders on how we can improve.

Workstream Objectives

Our key messages at the end of 2020 relate to our role in Net Zero and the Green Economic Recovery (particularly COVID-19); Delivering DSO and laying the foundations for the UK's smart electricity grid; Expanding local markets for flexibility; and delivering Open Data. Ensuring that we are clear on how Open Networks facilitates Net Zero is key and the link will be made more strongly in 2021 with some targeted communications.

The objectives of Workstream 5 are to:

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

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

- Proactively support stakeholder engagement for key Open Networks Output
- Provide comms input and review into key publications (e.g. consultations, EoY report)
- Engage with parliamentarians & policy makers
- Generate media and stakeholder interest
- Generate Press Releases
- Communicate via Social Media
- Provide Interviews
- Generate research material and/or communications material (e.g. animations) to support key messaging
- Participate in event speaking opportunities
- Exhibit

Workstream 5 will review and ensure alignment with wider ENA comms work, particularly through the Media and Campaigns Group. At the beginning of 2021, Workstream 5 will conduct a stakeholder analysis review to ensure that we are targeting the right stakeholders in the right way to support our objectives. Through the year, this workstream will also consider measurement/metrics and lessons learned as we go.

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 project.

Community Energy Forums was a new initiative in 2020 and we will continue to run 3 Community Energy Forums in 2021 with similar objectives to last year:

- Open Networks is committed to building an energy system that is all inclusive
- These will be a series of focussed engagement forums specifically for community energy groups to get involved in the transformation of our network roundtables will give community groups a dedicated forum to engage with the project, find out more, and respond to our open consultations. We will ensure that Citizens Advice is an integral part of these Forums to ensure that the needs of vulnerable customers are taken into account and we deliver against our objective of inclusivity.
- We will use the Community Energy Forums as an opportunity to gather a Community Energy response to consultations where possible.
- We will look to partner with organisations like Regen and Business Green to follow on the work initiated in 2020 and we will set aside budget for this.

We will look for agency support for parliamentary activities, including polling on exposure to Open Networks, DSO and flexibility. We will have new parliamentarians and cabinet next year.

We will need to continue to produce fresh infographics and fact sheets to give different levels of knowledge and detail depending on the audience.

In addition to the above, WS5 will help to support and improve stakeholder knowledge of Active Network (ANM) Management and Flexible Connections that have played a key role in facilitating quicker and more affordable connections to the network. Please see WS1A section on Background to work on ANM and its interaction with Flexibility for further details. It is proposed to increase stakeholder awareness of ANM when other project activity is quieter (e.g. Spring 2021).

Workstream Products, Dependencies & Schedule

Ref	Product	Timeline/ frequency	Target audience
1	ENA organised breakfast briefing events, to be held virtually, or at ENA 's offices (circumstances permitting)	Up to 2 a year	Energy sector, think-tanks, policymakers, trade & national media
2	ENA sponsored Westminster panel events or private dinners, to be held virtually, or at external venues and in partnership with appropriate external organisations (circumstances permitting), fitting in with the wider ENA public affairs objectives agreed by the Media and Campaigns Delivery Group and Strategic Communications Committee.	Up to 2 a year	Energy sector, think-tanks, policymakers, Government, MPs & researchers, trade & national media
3	Webinars to provide opportunities for the wider stakeholder community to feed into appropriate Open Networks consultations and products.	In line with Workstream consultations and product timelines	Energy sector, policymakers
4	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, think-tanks, policymakers, Government, MPs & researchers, trade & national media

5	'Drop-in' stand/exhibition at industry events (e.g. LCNI, Power Responsive, DNO events)	Up to 4 a year	Energy industry, think-tanks, policymakers
6	Social media collateral (animations, infographics) to promote Open Networks	Quarterly – up to 4 7 day campaigns a year. Material repurpose and reused in addition to that	Energy industry, think-tanks, policymakers, Government, MPs & researchers, trade & national media
7	Communications and engagement strategy development	Annual	ENA, ENA members, ON Steering Group
8	Community Energy Events: Location costs, article, promotion	3 per year	Community Energy participants, policy makers
9	Develop comms plan to improve stakeholder knowledge of ANM and Flexible Connections and the link for how Open Networks facilitates Net Zero to deliver through 2021	Q1 for Comms Plan.	Distributed Energy Resources and potential flexibility service providers

Workstream Assumptions

ENA members

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

ENA Press & Public Affairs Strategy

Open Networks is one of three Strategic Projects as part of ENA's Press & Public Affairs Strategy, as agreed by ENA's Media and Campaigns Delivery Group. It therefore forms a key part of ENA's wider communications activity and will be used throughout 2021 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 Project 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 – External Dependencies and Interfaces

These dependencies need to be managed at a project level to ensure the right level of engagement and then at a more detailed product level to ensure that we are clearly defining and understanding:

- Where outputs from the Open Networks are fed into relevant groups/projects to inform their work.
- Key outputs delivered in the industry, including trails are taken into consideration in the development work under relevant products and workstreams.

The following table introduces some of the external dependencies at a project level that have been identified at this time. It is to be noted as part of the early development work for each product, the detailed linkages and interactions with external working groups and initiatives will need to be identified and managed as required through the life of the products. The onus is on the Workstreams and product teams to manage the dependencies with input from the workstreams and the Steering Group.

Category	Dependency Group	Description
Charging & Access	Ofgem's Future Charging and Access Reforms	This is a key initiative that is expected to be supported by the Regulation team in ENA and sits outside the Open Networks Project. The minded to decision on the proposals for the Access SCR has been delayed to 2021 and links into a number of WS1A developments, including any work that relates to Flexible Connections and ANM. This will need to be closely monitored and findings will need to be assessed by WS1A as and when they become available to understand the impact. We will continue to interface with the ENA Lead involved in the SCR and charging work.
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 will be progressing the development of the National Energy System Map (NESM) in 2021 that will serve as a platform to share data publicly with non-network stakeholders. WS1B will appropriately liaise with this group to understand whether operational and planning data identified in WS1B can be made available via the NESM. https://www.energynetworks.org/info/modernising-energy-data.html
TEF	TEF Project	The Transition (SSEN), Electricity Flexibility and Forecasting Systems (WPD) and Fusion (SPEN), also known as TEF, are the joint DSONIC 2017 projects that have been approved by Ofgem. These projects are very closely linked to the work under ONP as they build upon the DSO functions and Future Worlds work and are a vehicle to practically test various areas of DSO functionality such as platforms, forecasting systems and flexibility markets through Universal Smart Energy Framework (USEF).

		The TEF projects will continue to be a key dependency for the ONP and the interaction needs to be identified at a product level with agreed inputs/outputs and when these will be shared. TEF projects will continue to feed into mitigating actions identified as part of WS3's COI and UC register. We will continue to manage this liaison through the TEF Projects Representative through their involvement in the various workstreams. ENA will continue to have a seat at the TEF Steering Board. Where direct linkages with products are identified (e.g. WS1A P6 taking forward work on shared access), product teams will manage that liaison.
DSO Related Innovation Trials	New NIC and other NIA projects LEO BEIS Flex Competition	Existing industry trials that relate to DSO were mapped out as part of 2019 WS3 P5 and WS3 will ensure that these trials are monitored and are highlighted to relevant workstreams/products to ensure alignment. In addition, relevant new projects need to be highlighted to the relevant workstreams and products under Open Networks to consider. WS1A P6 will take input from BEIS Flex Competitions, RecorDER and look to others. WS3 will be responsible for ensuring that DSO related trials are monitored and relevant dependencies are fed into the appropriate workstreams.
Industry Forums	Smart Systems Forum	BEIS/Ofgem Smart Systems Forum brings together representatives from the wider industry to help implement and steer the Smart Systems & Flexibility Plan and cover wider network issues related to the evolution of the electricity system. ON will continue to provide updates and input through the ENA representatives on the group.
	ESO Forward Plan	In order to facilitate whole electricity system outcomes, it is key to ensure that the work is aligned with the ESO Forward Plan and the roles and principles outlined within it to ensure alignment of processes and consistency across GB. This will be taken forward through ESO representation on products and workstreams. Detailed touch points with the various areas of work being led by the ESO are identified in detail at a product level with input directly being managed by the ESO representatives allocated to those products.
RIIO 2	ENA Electricity Regulation Group (ERG), Ofgem & BEIS	Ensuring that our work to date feeds into the RIIO 2 process is a key priority area for us. There are a number of products that are inputs to RIIO 2 developments (e.g. WS4 P1, WS1A P1). The DSO Implementation Plan will allow us to demonstrate actions and capabilities that are needed in the price control period and will inform the individual company business planning process for ED2 We continue to participate in RIIO ED2 working groups and liaise with the ENA Regulation Committee to ensure that the ON findings feed into the RIIO2 process. The RIIO 2 Overarching Working Group (OAWG) is taking forward work on the development of DSO Metrics that will inform the DNO business plan

		submissions in 2021. This group has representation from WS3 that will ensure that the DSO developments from ON are fed into this work. As Ofgem develop their ED2 CBA, WS1A P1 will continue to engage with Ofgem to link the ED2 CBA with the Common Evaluation Methodology (CEM) that was developed under ON in 2020 and is being implemented by all DNOs by Apr 21.
Ofgem DSO related work	DSO Key Enablers & LTDS Consultation	Ofgem's consultation on the Key Enablers for DSO Programme of work and the Long term Development Statement has been a key driver for our scope last year and we will continue to link-in and support any further outcomes that result from this body of work.
Code Groups	SQSS, GC, DC, SEC, STC, DCUSA, CUSC and BSC	Through the DSO Implementation plan all code changes that have been identified as part of ON products will be mapped out against required timescales. Once Code Mod processes are underway, the Workstreams will help to identify the necessary representation to ensure thus is provided to the Working Groups. ON Workstreams that have generated mods can then monitor progress of the code mods once underway and consider if there is any further analysis or supporting work from Open Networks that might help. If there is any impact from the Energy Code Review, this should also be taken into account.
ENA Groups	ENA Cyber Security Group	The ENA runs a cyber security group with experts in this field. We regularly share ON development work with experts in this group for considering present and future requirement and will continue to do so. The ON project has fed into the development of the Cyber Security Guidelines for DER that are being developed by ENA and BEIS and will continue to inform future requirements.
Skills	Training & Competences Committee	ENA's T&Cs committee will undertake work on DSO skills and competencies and WS3 will liaise with them to provide them input as SMEs on the functionality that has been identified to date through the DSO Implementation Plan.
Power Responsive	Power Responsive Forum	We work closely with the Power Responsive forum and provide regular updates on our work on flexibility at their Flexibility Forum. Open Networks is represented at the Power Responsive Steering Group through DNO representatives that are involved in Open Networks. We will continue the engagement and coordination that we have through existing channels
Government Position Papers	Energy White Paper	The Energy White Paper will be a key industry position document and we will review and incorporate any DSO related aspects from this paper into our work through WS3 as well as other workstreams.
Other product level dependencies		Product teams will continue to monitor and engage with the relevant trials, initiatives and code changes for mutual sharing of learnings. These are noted in the product scope sections and these will continue to evolve and be managed at a product level.

		Some examples of such initiatives include Regional Development Programmes, Pathfinder Projects and code changes such CMP328, GC0139, DCRP/MP/20/04, P375 etc.

Appendix B – Project Governance and Structure

ENA Board

The ENA Board is engaged with progress and any issues from the Open Networks Project. Randolph Brazier will report to the ENA Board from ENFG.

ENFG

ENFG will be the group that holds the funding for the Open Networks project, but will delegate authority for the spend of that budget and the management and delivery of the project 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 project.

Open Networks Project Steering Group

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

In addition, the ON Project Steering Group also has the responsibility of the approval and delivery of products and outcomes from the ENA Data Working group.

We expect that key products or deliverables will come to the Steering Group for approval and sign-off, but a high proportion of products will be delivered and approved within workstreams.

The ON Project Steering Group will be chaired by an ENA Member representative (Nigel Turvey from WPD at this point of the project) and supported by the Project team as secretariat.

The ON Project Steering Group will be a small group with a single representative (with alternate) from each operator organisation including Ofgem and BEIS, ENA representation from the Innovation and Electricity Systems Director, Head of Open Networks, Project Manager and the Open Networks communications lead to provide a link to the ENA Public Affairs Committee (PAC).

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

The ON Project Steering Group will assess:

- Priorities and scope through the PID and project 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 the networks from a united programme perspective. 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.

ENA Gas Goes Green Steering Group

WS4 will have dual governance and reporting requirements to ensure input and approval on key changes for GDNs that are identified through this workstream. Thomas Koller from ENA and Stuart Easterbrook will report progress to the ON Gas Goes Green Steering Group on an ongoing basis.

Open Networks Project Advisory Group

The Open Networks Project Advisory Group is a critical group for stakeholder input to the project developments. This meets every 2 months. This has worked well to date with representatives published on the ENA website.

Input and feedback at Project Advisory Group meetings are recorded and all specific points are addressed. Starting in 2021 the Data and Digitalisation Steering Group (DDSG) will be presenting at the Advisory Group to share major updates. Input and feedback to date has been used to shape the Project work plan and outputs including this PID.

Ofgem & BEIS

The ON Project will continue to work closely with Ofgem and BEIS and we expect that the project outputs will contribute to future Ofgem and Government considerations on future markets as well as RIIO 2.

Ofgem and BEIS input to the Project Steering Group and to specific workstreams and product teams where this is of particular value. Ofgem and BEIS representatives also attend the Project Advisory Group.

In addition to the above, the project team will undertake quarterly reviews with Ofgem to discuss progress and address any issues.

DER Connections Steering Group

The ON project will liaise with the DER Connections Group as required to provide updates and to take their input on key customer connection facing deliverables.

ENA Regulation Committees

The ON project 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 project will also continue to brief the wider ENA Regulation Committee given the increasingly dual fuel nature of developments, particularly Workstream 4.

ENA Data Working Group

ENA's Data Working Group was formed in 2018 to collaboratively address data issues across electricity and gas, access new datasets and identify opportunities to gain value from existing datasets. This work is working with industry to progress and deliver the recommendations of the Energy Data Task Force to deliver modern and digitalised energy networks for customers. The Data Working Group will deliver continue to report to the Open Networks Steering Group to ensure collaboration and alignment across both projects.

Open Networks Project Team

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

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 project. 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 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 log and direct the delivery of the DSO Implementation Plan with the consultants commissioned to deliver it. There will be no separate product working groups under Workstream 3.

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

Recognising that as we approach RIIO ED2, we are likely to be constrained for DNO member resource and in order to maintain momentum on the delivery of products, we will utilise external consultancy support as identified against specific deliverables to mitigate the impact as much as possible.

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 project team.

Stakeholder Management

The project will continue to meet and discuss ON with key stakeholders through various forums including but not limited to the Advisory Group. The project 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, consumers.

The level of stakeholder engagement for 2021 is expected to be similar to 2020.

We will maintain a focus on the following two aspects of engagement:

- Input to and review of our key products and deliverables through the Advisory Group
- Ensuring that the wider stakeholder community are engaged with ON Project developments and have opportunities to engage.

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

- Continued collaborative development with Advisory Group
- Wider consultation on key products including webinars
- A more structured plan for public consultation is included in this PID

In 2021, we will continue to focus on wider stakeholder community engagement. Activity will include:

- Public newsletter
- Speaking opportunities at external events
- Breakfast briefing events
- Panel events
- Webinars
- 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.

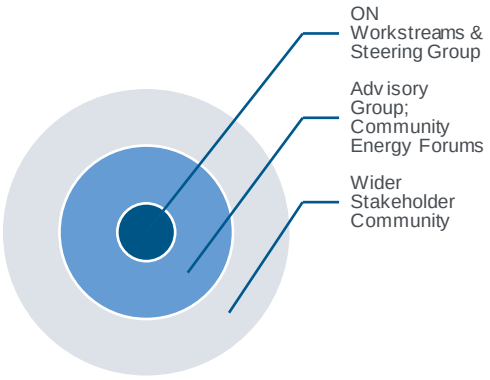


Figure 4 Categorisation of Stakeholders to support Engagement Activities

Appendix C – Project Delivery Approach and Planning

Introduction & Approach

This PID will act as the scoping document for delivery of products in the project, 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 Project 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 project where we can.

Project Closure

We will continue to monitor completion of the products on a year by year 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 project.

Change Control

Change to products and deliverables

The Project Team will undertake work to identify enduring options for managing change to Open Networks product deliverables. For 2021, it is expected that any changes to key products under Open Governance (such as WS1A P4 Common Contract) and WS4 P1 (Whole System CBA) will be assessed and delivered by the product teams as part of the scope for these products in 2021.

Change to scope, time or cost

Where any deviations from the baselined scope, time and cost are identified, the Project 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.

Products Expected for Advisory Group Review

Taking a similar approach to last year, we will share products through their development cycle with the Advisory Group to ensure that their feedback can help steer and inform the outputs. We will endeavour to share agendas and supporting material two weeks in advance to provide stakeholders visibility of the products and material that will be reviewed.

Appendix D – Summary of Products and Deliverables

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

Dependencies for ED2 Business Planning

For transparency and to aid the development process for ED2 business planning, we have reviewed the products below to consider where:

- we plan to complete all activities within ED1 and therefore we do not expect any impact in ED2 - not marked in the table below
- there is a dependency on the completion of the July ED2 business plans to provide input into the 2021 products - the Q3 DSO Implementation Plan, as highlighted by an asterisk (*) in the table below
- the implementation timescales for Open Networks products/outcomes may extend into the ED2 window therefore DNOs should consider this work in their business planning. These have been identified with a double asterisk (**) below with a short description.
- There are products where our development work is likely to contribute to the development of Ofgem methodologies and determinations and this may in turn require further development in ED2 to reflect future regulatory outcomes. These have been identified with a triple asterisk (***) below with a short description.

There are a number of products where regulatory change may extend the implementation windows into ED2 and these are shown with both ** and *** as described above.

WS	Element	Deliverables	Baseline
Project		**Project Deliverables**	
		PID consultation period	Jan - Mar 21
		Summary of consultation, next steps & revised PID	May-21
		Proposal for enduring governance and change management under BAU arrangements	Sep-21
WS1A		**WS1A 2021 Consultation**	
		Consultation document	Jul-21
		WS1A Consultation period	Aug - Sep 21
		Summary of consultation & next steps	Nov-21
		P1 Common Evaluation Methodology *** updates may be required due to RIIO2 methodologies	
	1A	New forum created (no deliverable)	Jun-21
	1B	Develop tender documents to engage consultancy	May-21
	1C	Revised CEM and Tool to incorporate option value of flexibility and carbon value	Dec-21
		P2 Procurement Processes ** depending on implementation timescales for future developments	
	1A	Paper outlining confirming DNO ESO alignment on procurement windows	Jul-21
		P3 Principles to Review Legacy ANM Contracts *** depending on regulatory approach	
	3A	Report outlining current approaches and best practice	Mar-21
	3B	Report on stakeholder feedback and recommendations	May-21
	3C	Curtailment Guidance	Oct-21
	3C	Consultation document - Principles for legacy contract review	Oct-21

	3C	*Consult with stakeholders*	*Oct - Nov 21*
	3C	Finalise Principles for legacy contract review	Dec-21
	3D	Agreed regulatory approach	Dec-21
		P4 Commercial Arrangements	
	4A	V1.2 of contract reflecting S/H feedback	Feb-21
	4B	Evolution Report	Apr-21
	4C	V2 of contract for alignment of ESO terms - for consultation	Aug-21
	4C	V2 Public Consultation	Sep - Oct
	4C	Updated V2 reflecting consultation feedback	Dec-21
		P5 Primacy Rules for Service Conflicts *** depending on any regulation ** depending on implementation timescales for change	
	5A	Plan outlining approach to deliver this product	Aug-21
	5B	Report setting out primacy principles for network coordination and co-optimisation	Nov-21
		P6 Non-DSO Services *** depending on any regulation ** depending on implementation timescales for change	
	6A	Paper summarising market simulation findings	Apr-21
	6B	Paper summarising trial outputs	Sep-21
	6C	Paper outlining rules and require data sets to enable these markets.	Apr-22
	6D	*Share latest view and draft for Dec 2021.*	
		P7 Baseline Methodologies	
	7A	*Share findings from webinar and survey (no deliverable)*	
	7B	Final Baseline Design	Jun-21
	7B	Verification tool specification document	May-21
	7B	Draft implementation plan	Jun-21
	7B	Governance strategy proposal	Jun-21
	7D	*Analysis results from testing tool (not for publishing)*	*Oct-21*
	7D	Final verification tool and algorithms	Oct-21
	7E	Final report, Implementation timeline and strategy	Dec-21
	7E	Supporting documents and handover	Dec-21
		P8 Apportioning Curtailment Risk *** depending on any regulation ** depending on implementation timescales for change	
	8A	Matrix depicting status-quo	Apr-21
	8B	Paper detailing the options for future ANM options including impact assessment	Jul-21
	8C	Webinar and bi-lateral feedback summary	Sep-21
	8D	*Agreement on options to take forward (no deliverable)*	*Nov-21*
	8E	Implementation Plan	Dec-21
		P9 Curtailment Information *** depending on any regulation ** depending on implementation timescales for change	
	9A	Report that captures the principles underpinning improvements	May-21
	9B	Report that captures the stakeholders' key requirements	May-21
	9C	Revised ONP "DNO Provision of Constraint Information" report	Mar-21
	9D	Gap analysis of future needs with current curtailment information; and priorities identified.	Jul-21
	9E	*Consult with stakeholders on the proposed targeted plan to deliver improvements in the provision of curtailment information (no deliverable)*	*Jun - Dec 21*
	9F	Implementation Plan	Dec-21
WS1B		**P2 FES & Central Scenario**	
	2A	Proposed improvements to DFES process & publications.	May-21

	2B	"Best view" forecast methodology and agreed implementation areas for its' application Each DNO to produce a one-page description on how the favourite output scenario is employed in their best view scenario forecast	Jun-21
	2C	Stakeholder engagement plan to seek views on areas for stakeholder coordination	Jun-21
	2C	Findings of engagement activity	Aug-21
		P5 Network Development Process	
	5A	Milestone - Publication of Network Capacity Signposting Report by DNOs (No deliverable expected)	Jul-21
	5A	Stakeholder engagement on published Network Capacity Signposting Reports to inform NDP process (No deliverable expected)	Oct-21
	5B	NDP Form of Statement Template & end to end process	Dec-21
		P6 Operational DER Visibility & Monitoring *** CBA likely to provide input to regulation ** depending on implementation timescales for change	
	6A	Agreed variables for use cases	Jun-21
	6B	Defined use cases and volumes	Jun-21
	6C	Functional specifications for all use cases (including operational metering)	Jul-21
	6D	CBA for all use cases	Dec-21
		P7 Operational Data Sharing *** governance may be subject to regulation ** depending on implementation timescales for change	
	7A	Shortlist of datasets, their use cases and benefits	Jun-21
	7B	Proposal outlining options for mechanisms and recommendation for next steps	Jun-21
	7C	Proposal for implementation including recommendation for governance arrangements	Sep-21
WS2		**P1 ECR** ** depending on implementation timescales for change, which may be driven by Code Mod timescales (e.g. DCUSA)	
	1A	Updated ECR to include improvements	Aug-21
	1B	Updated ECR to include additional information for T	Jul-21
	1B	Proposal for inclusion of ESO Balancing Services Information (implementation by Apr 22)	Jul-21
	1C	Process to develop format and proposal for inclusion of <1MW.	Jul-21
	1C	Implementation Plan for inclusion of assets down to 50kW	Jul-21
	1C	Updated ECR with recommendations as per CBA for <1MW	Dec-21
	1D	Recommendations for implementation of a database solution	Jul-21
	1D	Recommendations for implementation of a central register	Sep-21
		P2 Queue Management ** depending on implementation timescales	
	2B	Proposal for any next steps for further standardising promotion of flexible resources in the connections queue	Sep-21
	2A	Draft implementation plan, Stakeholder engagement plan and Open letter deliverables	Feb-21
	2A	Updated user guide with agreed wording across all companies	May-21
		P3 Interactivity	
	3A	Paper outlining impact of CMP398 on interactivity processes	Sep-21
	3B	Updated user guide (if required)	Dec-21
		P4 Connection Agreement Review	
	4A	Scope proposal for further work	Sep-21
		P5 User Commitment Improvements	

		** depending on regulatory changes (e.g. CUSC Mod) and implementation timescales	
	5A	PowerPoint / Report summarising shortfalls and recommended areas to update.	Apr-21
	5B	Stakeholder engagement (no deliverable)	Jun-21
	5B	Raising CUSC modifications	Jul-21
WS3		**P1 DSO Implementation Plan**	
		Q1 update	Mar-21
		Q3 update * will use July ED2 Business Plan outputs	Sep-21*
		Findings of independent audit	Dec-21
		P2 Potential Conflicts of Interest & Unintended Consequences	
		Q1 update	Mar-21
		Q2 update	Jul-21
		Q3internal review	Sep-21
		Q4 update	Dec-21
WS4		**P1 Whole System CBA** *** planned to apply to RIIO2	
	1A	Milestone - Model Incorporated into CAM consultation	Mar-21
	1C	List of potential topics for further product development	Jun-21
	1C	V2 - Updated version of model and methodology incorporating substantial updates (e.g. option valuation and others)	Dec-21
	1C	Governance document	Dec-21
	1C	Conclusions and recommendations report for further development	Dec-21
		P3 Coordinated Gathering of Regional Data	
	3A	Local Authority led data alignment recommendations	Jul-21
	3B	Detailed processes and templates for adoption of network led approach	Jun-21
	3B	Repository of regional data	Jun-21
	3B	Network led regional data gathering summary	Oct-21
		P4 Investment Planning ** depending on implementation timescales	
	4A	Proposal to progress whole system optioneering indicating scope, potential cost, scale of change	Jun-21
	4B	Detailed processes, templates and timescales of implementation	Jul-21
		P5 Local Area Energy Planning	
	5A	Scope proposal for further work. Go/no-go decision in June.	Jul-21