The Voice of the Networks

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**Open Networks Project
Phase 4 2020
Project Initiation Document**

May 2020

Energy Networks Association

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Document Control

Authorities

Version	Issue Date	Authorisation	Comments
0.1		Jason Brogden	Draft to Ofgem 18/11
0.4		Jason Brogden	Updated with product descriptions and corresponding budget
0.9		Open Networks Project Steering Group	Approval for workplan requested through this version.
0.10		Open Networks Project Steering Group	Further changes based on Ofgem and BEIS comments and updates from Workstreams 1B and 4
1.0	21/01/2020	Open Networks Project Steering Group	Approved version to distribute for consultation
2.0		Open Networks Project Steering Group	Post-consultation version reflecting stakeholder comments and any other key changes

Related Documents

Reference 1	ENA Response to Ofgem/BEIS Open Letter[1]
Reference 2	

Change History

Version	Change Reference	Description

Distribution

To be published alongside consultation document for views from external stakeholders

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[1] https://www.ofgem.gov.uk/publications-and-updates/open-letter-ena-open-networks-project-ofgem-and-beis

Table of Contents

1 Introduction

1.1 About ENA and our members

Energy Networks Association (ENA) represents the "wires and pipes" transmission network operators in the UK and distribution network operators for gas and electricity in the UK and Ireland. Our members control and maintain the critical national infrastructure that delivers these vital services into customers' homes and businesses.

1.2 Purpose of this Project Initiation Document

This Project Initiation Document (PID) outlines what the Open Networks Project will deliver in 2020, how it will be delivered and when. It is a best view at this point and is informed by stakeholder feedback

An initial version of this PID was published for consultation in January 2020[2] and we have now incorporated stakeholder feedback into our scope, timelines and priorities that are reflected in this version of the PID. Key changes to this version of the PID are summarised in Section 1.3.

This PID represents our best view of scope for this year and the Open Networks Project will continue to be adaptable in its approach to delivery to ensure that emerging industry developments as well as key learnings from practical implementation can be reflected in our development work to ensure that it remain fit for purpose. 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, least regret areas of development to progress distribution system operation (DSO) as well as key priority areas highlighted by Ofgem and BEIS in their Open Letter and by stakeholders in their input to our scoping at the Advisory Group as well as stakeholder specific feedback to our Open Letter response. In addition to scope, this document also outlines the governance processes for delivery.

Engagement with Ofgem and BEIS is important to deliver against our objectives and to ensure consistency of our developments with regulatory and policy development.

We will continue to deliver on the Flexibility Commitments set out by the network operators and report on the implementation of those commitments. Transparency is an essential principle that underpins everything we do.

1.3 Key changes to this version of the PID

Whilst the ongoing COVID-19 crisis poses a number of new challenges and risks to the delivery of our workplan, our intention is to continue delivering the scale of ambition that we have set out. Despite the situation, we are continuing to make good progress as we adapt to new ways of working and engaging with stakeholders. A key risk for the project during this period is resource availability and the impact that this has on the timeliness of delivery, particularly in a situation where resources are diverted to emergency work. We are seeing some impact on Open Networks but we are currently able to maintain our momentum and we will continue to assess the potential impacts and manage them accordingly.

In addition to changes based on stakeholder feedback, we have also reflected further details on scope where they are available and have also reflected the current position on some products where minor delays have been incurred against our original target timescales.

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[2] The 2020 workplan consultation responses and our analysis of them can be found below:
https://www.energynetworks.org/electricity/futures/open-networks-project/open-networks-project-stakeholder-engagement/public-consultations.html

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The table below summarises key changes in this version of the PID.

Area	Key changes
Dependencies	Reflected further dependencies and provided clarifications, as suggested in the PID consultation responses, for example the key interaction between Open Networks and RIIO 2 developments.
Product scope	Additional sub-deliverable added under WS2 P2 Queue Management to reflect an implementation plan for promotion of flexibility in the queue. Further work has been included for WS4 P1 Whole System CBA and WS4 P3 Gas input to Whole System FES to reflect further phases following the approval at the Steering Group of further work in April 2020. Further descriptions have been added to clarify product scope.
Product timelines	No major changes to timeline based on stakeholder feedback. Minor changes to some of the sub-deliverable have been made to reflect latest position. The product summary table in section 4 the latest timescales with vast majority of products being delivered within 2020. This table also now includes 2019 products that rolled over into this year and additional work based on those.

1.4   Background to Open Networks Project

In December 2016, Energy Networks Association (ENA) members gave their commitment to the Open Networks Project, a major collaboration that will transform the way that both local Distribution Networks and national Transmission Networks will operate and work for customers.

Launched in January 2017, ENA's Open Networks Project has started to lay the foundations of a smart energy grid in the UK.

The Open Networks Project has introduced real momentum into the development work required to enable the UK's energy networks to:

- Facilitate our customers' transition to a low carbon future, including the electrification of heat and transport.
- Address the challenges rising from the continued uptake of local generation.
- Evolve to be market enablers for a whole range of new smart energy technologies.
- Reduce costs to customers by contracting for flexibility services alongside investment in traditional and innovative network solutions.
- Play a key role in delivering overall lowest energy system costs for customers, including vulnerable customers.

The Open Networks project will continue to maintain a transparent approach by making available all outputs from the project and will continue to focus on the implementation and delivery of these outputs.

Through Open Networks governance, the network companies are committed to deliver our outcomes and we will continue to provide visibility to industry on how these outcomes are being implemented by individual network companies.

1.5 Business Leaders' Commitment

The Business Leaders of the Distribution Network Operators (DNOs), GTC (as an independent Distribution Network Operator (iDNO), Transmission Owners and Electricity System Operator (ESO) have reiterated their commitment to a long-term project to be led by ENA to progress the transition to Distribution System Operation (DSO) through enabling flexibility markets and delivering whole system outcomes to reduce cost for consumers.

Open Networks is a delivery focussed project and business leaders have reiterated their support for the implementation of outcomes that are defined through this project, including good practice for greater alignment across network companies as well as new processes that are developed (such as SWRR, building blocks to support FES etc.).

We highlighted to the Business Leaders that we need to be adaptable in our approach to the project as we learn, as there will be a number of challenges and changes that we can't foresee now. Ofgem and BEIS have stressed the need for us to be adaptable in our project.

1.6 Longer Term View

The Open Networks project is a long-term piece of work to deliver network improvements and transition them into our existing market arrangements which ENA will set out in a long-term programme. Through previous phases, we have identified distribution system operation functionality and a least regrets pathway for its delivery. Through this phase and future phases of the project, we will continue to support a common approach to incremental delivery of this functionality and deliver improvements through optimisation alignment on existing processes across networks companies.

We expect that the project development work will evolve over time and we will adapt, but a broad timeline for development is set out below. Different initiatives will take different times to complete and there is the potential for staggered roll-out of some processes across different geographic areas, as Open Networks can't deliver "one-size-fits all" solutions for many of the challenges which can be geographic.

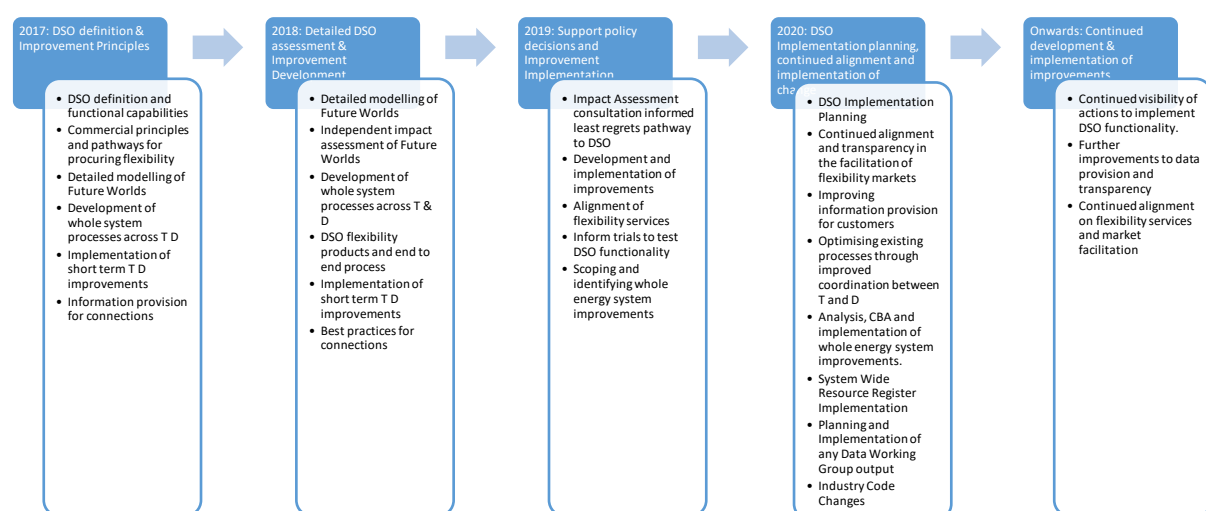| 2017: DSO definition & Improvement Principles	2018: Detailed DSO assessment & Improvement Development	2019: Support policy decisions and Improvement Implementation	2020: DSO Implementation planning, continued alignment and implementation of change	Onwards: Continued development & implementation of improvements
• DSO definition and functional capabilities • Commercial principles and pathways for procuring flexibility • Detailed modelling of Future Worlds • Development of whole system processes across T D • Implementation of short term T D improvements • Information provision for connections	• Detailed modelling of Future Worlds • Independent impact assessment of Future Worlds • Development of whole system processes across T & D • DSO flexibility products and end to end process • Implementation of short term T D improvements • Best practices for connections	• Impact Assessment consultation informed least regrets pathway to DSO • Development and implementation of improvements • Alignment of flexibility services • Inform trials to test DSO functionality • Scoping and identifying whole energy system improvements	• DSO Implementation Planning • Continued alignment and transparency in the facilitation of flexibility markets • Improving information provision for customers • Optimising existing processes through improved coordination between T and D • Analysis, CBA and implementation of whole energy system improvements. • System Wide Resource Register Implementation • Planning and Implementation of any Data Working Group output • Industry Code Changes	• Continued visibility of actions to implement DSO functionality. • Further improvements to data provision and transparency • Continued alignment on flexibility services and market facilitation

Figure 1 Open Networks Development Timeline

Overarching Programme Objectives

The objectives of the overall Open Networks Project remain from previous years to:

- 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).

- Maintain a leading position for network operators in the development of Open Networks.

- 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.

- Bring consistency in approaches across networks through existing and new processes to support the transition to DSO, interactions with each other and interactions with customers.

- Enable data visibility and better access to non-confidential data across transmission and distribution and for customers.

- Ensure conflicts of interest are proactively identified and appropriate measures are put in place to address them appropriately.

- 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.

- Inform the regulatory debate around funding (including ED2).

In addition to these previous objectives, we have additionally focused on the facilitation and development of flexibility markets.

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

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. For further details of how we have made developments on this in 2018, please refer to the 2018 Project Review.

Transparency & Publication on ENA website

We are taking the approach of being open and transparent with the development work under Open Networks and all of our products and output are published on the ENA website in our Open Networks pages[3].

In addition to specific Open Networks output, ENA also publishes information on flexibility services on their Flexibility in Great Britain webpages[4].

Ofgem and BEIS Open Letter regarding Open Networks Project

In July, Ofgem & BEIS wrote a joint letter to the ENA recognising the work delivered by the Open Networks Project[5] and provided clarity on priorities and actions that they expect to see progressed in

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[3] http://www.energynetworks.org/electricity/futures/open-networks-project/open-networks-project-overview/
[4] http://www.energynetworks.org/electricity/futures/flexibility-in-great-britain.html
[5] https://www.ofgem.gov.uk/publications-and-updates/open-letter-ena-open-networks-project-ofgem-and-beis

our workplan. In response to this letter, we adapted our 2019 workplan to reflect these priorities and set out some key elements for the 2020 workplan, which are reflected in this PID.

1.7   Monitoring Implementation

Our monitoring implementation activity is essential in holding ourselves to account for delivery of the outcomes and tangible changes defined within Open Networks, including:

- Good practice guidelines published by the project

- System implementation

- Flexibility Commitment Next Steps

- Potential conflicts of interest and unintended consequences

Going forward, we will continue to monitor implementation of the above and provide visibility of it through the WS3 DSO Implementation Plan with the first iteration in June 2020 and the second one in Q1 2021 to reflect updates from RIIO ED2 business plan submissions amongst other developments.

2 Project Scope, Workstreams & Dependencies

2.1 In Scope

ENA is responsible for leading Phase 4 of the Open Networks Project 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 2020. We will continue to engage with stakeholders and take an agile approach to ensure that what we deliver is fit for purpose, taking into 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

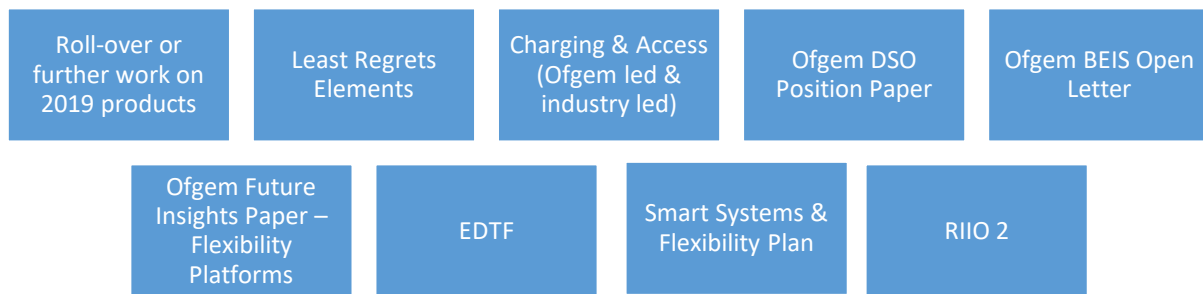2. Policy driven outcomes from BEIS or Ofgem

Roll-over or further work on 2019 products	Least Regrets Elements	Charging & Access (Ofgem led & industry led)	Ofgem DSO Position Paper	Ofgem BEIS Open Letter
Ofgem Future Insights Paper – Flexibility Platforms	EDTF	Smart Systems & Flexibility Plan	RIIO 2	

Figure 2 Key Drivers for Project Scope

The Smart Systems and Flexibility Plan, including any updates and further actions identified, will continue to be a key driver for the project scope. Ofgem's work on DSO enablers has been and will continue to be a key steer for us in our development work and in implementation by networks. 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.

2.2 Key Ofgem Priorities for Flexibility

We have seen real progress across network operators in the development, procurement and contracting of flexibility services and the Open Networks Project has played a key role in sharing good practice and experience as well as providing alignment and standardisation to unlock benefits for customers.

We have heard from Ofgem in their November Flexibility workshop that key priorities to unlock the full value from flexibility are:

- Ensure the FES and D-FES reflect a realistic range of future scenarios and are joined up and transparent, reflecting regional differences appropriately

- Develop each value stream to ensure the value from flexibility can be delivered and remunerated appropriately

- Ensure the uncertainty about the future is reflected in flexibility tendering and decision-making

- Ensure coordination across value streams to facilitate revenue stacking and prevent "locking out" of other markets by overly restrictive terms

- Ensure appropriate retail market arrangements so all consumers can benefit from a more flexible energy system, and are protected as befits an essential service

We are addressing all of these priorities and whilst there is no explicit product in our scope to look at retail market arrangements, we will continue to monitor any developments and ensure that we identify any potential pitfalls or adverse outcomes in the development of market arrangements. Through our work on potential conflicts of interest and unintended consequences in WS3, we will seek to increase interaction to ensure that we provide input to any retail market developments with the needs of the network and its' users, including the vulnerable, in mind. There are a number of entries in the risk register for conflicts of interest and unintended consequences that relate to vulnerable customers and avoiding distributional impacts.

2.3   Workstream Definitions

We considered arranging our work differently in 2020 (e.g. aligned to Ofgem workstreams), but retained the same structure and existing workstreams because:

- SME Expertise for different areas already in our workstreams and work allocated to that expertise

- Continuity is key – we lost momentum and time in 2018 by changing participants/workstreams

The below diagram shows the workstream split, but there are some changes in the way the workstreams will operate and this is explained later.
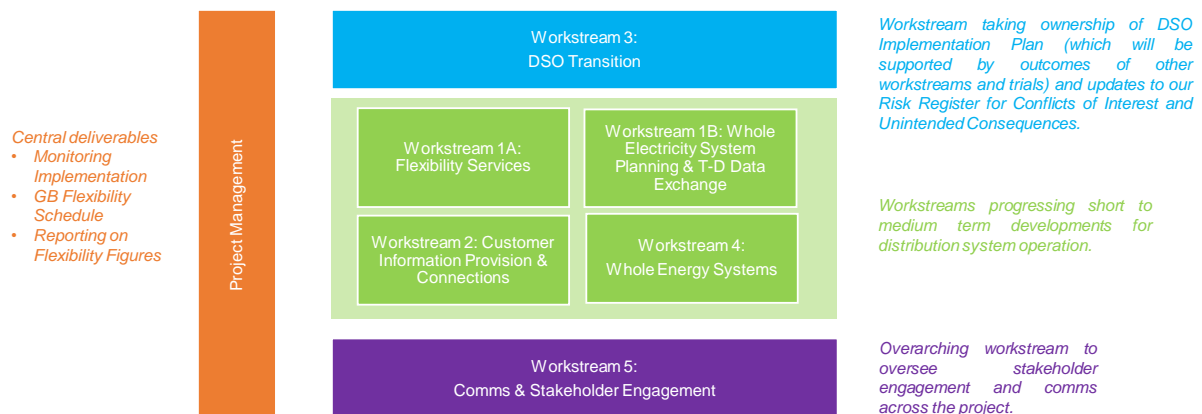

Figure 3 Open Networks Workstreams

We have 4 workstreams that are informing short-medium term developments to progress Distribution System Operation functionality across three discrete areas.

- **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 initiating new work to design changes to facilitate 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 take forward the work completed in 2019 on investment planning and forecasting to implement new processes as BAU and to further develop coordinated planning approaches in long term forecasting, investment planning, operational forecasting and real time timescales.

- **Workstream 2 – Customer Information Provision & Connections** will roll out queue management and interactivity processes developed in 2019 and will continue to support and ensure the implementation of the System Wide Resource Register and future enhancements.

- **Workstream 4 – Whole Energy System** will take forward recommendations to optimise existing investment planning processes and will start to look at further streamlining the Future Energy Scenarios process with input from gas networks. In addition to this, WS4 will undertake development of a whole system CBA methodology.

In addition to these, we have **Workstream 3 – DSO Transition** which will take ownership of the DSO Implementation Plan (which will be supported by outcomes of other workstreams and trials) and updates to our Risk Register for Conflicts of Interest and Unintended Consequences.

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

2.4   Out of Scope

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 not 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.

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).

2.5   External Dependencies and Interfaces

As the Open Networks project is starting to get into detailed process development and implementation, we recognise that there is an increased need for the project to interface with external working groups, industry trials and key initiatives to ensure alignment. For example, key output from Open Networks is key input to ED2 Business Planning (e.g. DSO Implementation Plan) and there is likely to be output from the ENA Data Working Group that will result in action to be taken by Open Networks.

These dependencies are set out in Appendix B.

2.6   Risks and Issues

Risks and Issues are managed by the Open Networks Steering Group as part of the monthly reporting and review.

3 Project Structure & Governance

3.1 Project Governance

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

Ofgem and BEIS representatives in all Open Networks Groups.
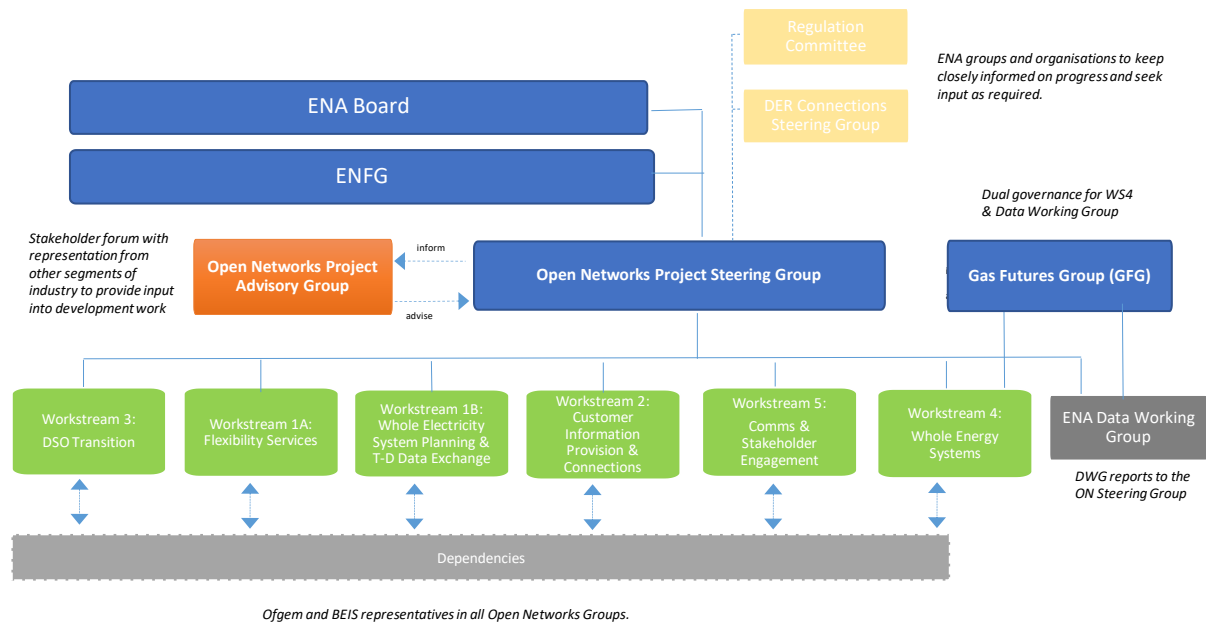
3.2 Key Changes for 2020

We have appended the project structure and governance because, for the reasons of continuity set out above, much of the governance has remained the same. There are some changes, however, which we set out below:

- ENA team resourcing now includes additional expert resource to support the flexibility workstream and the Unintended Consequences/Conflicts of Interest Risk Register. This recognises the importance of this work and allows the existing technical architect resource to be focused on Workstreams 1B & 2.

- The ENA Data Working Group reports into joint governance between the Open Networks Steering Group and the Gas Futures Group. This allows this key initiative to make use of our delivery focused project governance.

- Increased focus on monitoring implementation to ensure that we are holding network companies to account for the implementation of outcomes and change from Open Networks, including the Flexibility Commitment next steps.

3.3 Delivery Approach and Planning

We have included much of the project delivery approach in Appendix D.

A lesson learnt from 2019 is to try to avoid losing continuity in workstreams, products and teams and therefore, we have maintained the existing workstreams and product teams where possible.

Following stakeholder feedback from Citizens Advice, we will raise with all Workstreams in May/June 2020 the need to review all development work and outputs to ensure that the perspective of vulnerable customers is taken into account.

3.4 Products for Public Consultation

Description		Launch Timing
Overall Project		
Future Workplan & Prioritisation for 2020		Jan 20
Workstreams		
WS1A	Consultation on all Flexibility outputs including the following: WS1A P1 – First iteration of common decision making criteria for ANM vs Flex vs Reinforcement (including flexibility valuation) WS1A P2 – Common decision making criteria for assessing tenders WS1A P3 – Implementation Plan for further alignment on active power services WS1A P6 – Any early conclusions on recommendations for Non-DSO services WS1A P7 – Questions to industry on baselining approaches	Jul 20
WS2	Consultation on user guide and processes for the application of Queue Management processes including promoting flexibility and how milestones are applied.	Apr 20
WS1A	Seeking stakeholder input on first release of common contract for flexibility services (WS1A P4).	Apr 20

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 2020 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 maintain an events calendar on our 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. 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.

https://www.energynetworks.org/electricity/futures/open-networks-project/open-networks-project-stakeholder-engagement/events.html

3.5   Further work based on findings of the ENA Data Working Group

The ENA Data Working group was established in November 2019 to take forward the recommendations from the Energy Data Task Force (EDTF) and focus on digitalisation of the gas and electricity networks. This group is providing an overarching view across electricity and gas on the digitalisation strategy and network data requirements to support the EDTF recommendations and this (further development and implementation planning) will be taken forward as required by the relevant working groups at ENA including the Open Networks project.

In order to facilitate this, we have retained capacity within workstreams and will be undertaking a specific review in July 2020 to review the outputs from the ENA Data Working Group and develop a plan to progress them under the relevant workstreams/products within Open Networks. Our best view at this stage is that there may be additional work in WS1B to further define and implement electricity T and D data requirements and in WS2 to improve information provision.

More information on the ENA Data Working Group can be found on a dedicated webpage[6] for the group to share progress updates and for flagging key stakeholder events. More recently, the group launched a video that demonstrates the use of a new platform for the Digital Systems Map (as recommended by the Energy Data Task Force) for displaying network and asset data and will be planning further events to engage with the industry. ENA will be running a series of stakeholder events across the year and will also be notifying stakeholders of opportunities to engage in this work via the Open Networks mailing list.

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[6] https://www.energynetworks.org/info/modernising-energy-data.html

4   Open Networks Project Product Summary

WS	Element	Description	Completion date
		2019 Rolled over and other deliverables	
		WS1A P5 Good Practice Guide for Conflict Management & Co-optimisation	**Apr-20**
		WS1A P5 - Paper clarifying ANM and Flex interaction during operations & stackability.	**Jun-20**
		WS4 Final Report for 2019	**Jan-20**
		WS1A P3 Good Practice for Dispatch and Settlement & Implementation Timeline	**Apr-20**
Project		**Project Deliverables**	
	N/A	2020 PID Consultation	Jan-20
	N/A	Summary of PID consultation responses and next steps	May-20
	N/A	Monitoring Implementation Update – to be incorporated into DSO Implementation Plan	Jun 20 - First iteration Q1 2021 - Second iteration
	N/A	Flexibility Figures	Feb-20 & Jul-20
WS1A		**WS1A Deliverables**	
	N/A	Flexibility Consultation Document referencing all Flexibility output to date in WS1A, including: WS1A P1 – First iteration of common decision making criteria for ANM vs Flex vs Reinforcement (including flexibility valuation) WS1A P2 – Common decision making criteria for assessing tenders WS1A P3 – Implementation Plan for further alignment on active power services WS1A P6 – Any early conclusions on recommendations for Non-DSO services WS1A P7 – Questions to industry on baselining approaches	Jul-20
	N/A	Summary of Flexibility consultation responses and next steps	Oct-20
		P1 ANM vs Flexibility vs Reinforcement Common Methodology	
	A	Report or slides outlining analysis of existing decision making criteria and methodologies across DNOs for ANM vs Flexibility vs Reinforcement vs other options.	Jul-20
	C	Paper outlining first iteration of common decision making criteria and methodology for all DNOs to adopt. (as supporting document for Flexibility Consultation)	Jul-20
	C	Paper outlining final decision making criteria for all DNOs to adopt and change process for making changes to it in the future.	Nov-20
	D	Flexibility Valuation Tool to support ANM vs Flexibility vs Reinforcement decisions	Nov-20
	E	Implementation Plan for agreed decision making criteria and methodology	Dec-20

		P2 Procurement Processes	
	A	Slides or report outlining analysis of decision making criteria for the assessing and awarding tenders	Mar-20
	A	Report outlining proposed common decision making criteria for assessing tenders	Jun-20
	A	Agreed Implementation timescales for assessing tenders for all DNOs with common criteria	Jun-20
	B	Report outlining detailed good practice for DNOs to adopt on alignment of end to end tender process; Reasoning for not converging on any elements and timescales for reconsidering alignment on them	Nov-20
		P3 Active Power Services Parameters	
	A	Slides or report sharing analysis of further parameters to standardise for current 4 active power DSO services	Jun-20
	A	Paper outlining Implementation plan for alignment on further parameters for active power services. (as part of Flex Consultation)	Jun-20
	B	Revised Implementation plan for further DSO service parameters if required	Oct-20
	B	Updated Common Contract to include further DDSO service parameters that are agreed.	Dec-20
		P4 Commercial Arrangements	
	A	Agreed contract for 4 active power DSO services	Mar-20
	A	Implementation Plan for standard contract	Mar-20
	B	Findings from gap analysis (to identify key differences between ESO embedded service contracts and standard DSO contract)	Jul-20
	B	Include ESO Schedule in standard contract	Oct-20
	B	Implementation Plan for ESO adoption of any new contract terms	Dec-20
	C	Report outlining governance and change control for standard DSO service contract	Oct-20
	C	Report on where common DSO service contract used by DNO	Dec-20
		P5 New DSO Services	
	A	Common definition and requirements for additional flexibility products that are agreed for all DNOs to adopt in 2021	Dec-20
	A	Common Contract Change Request to reflect any new DSO products that are defined.	Dec-20
		P6 Market Facilitation – Non DSO Services	
	A	Paper summarising the following: • proven principles/rules of engagement • minimum requisite datasets pre and post transaction for network stability	Jun-20
	A	• Plan outlining any further work for all DNOs to make the minimum requisite data sets available. • Plan outlining further work required in Open Networks to allow market participants to provide minimum requisite data sets to the DNO to ensure network stability. Progress review in Jun-20 followed by summary paper in Dec-20	Dec-20
		P7 Baselining Methodology	
	A	Scope document & Consultation questions for baselining methodology for consultation.	Jun-20
	C	Findings & Recommendations report for Baselining Methodology	Dec-20
WS 1B		**P1 Investment Planning**	

		Potential updates to 'Guideline to Whole System Investment Planning' (if required) EREP	Dec-20
		Investment Planning Code changes	Dec-20
		P2 Whole System FES - Coordination of National and Regional FES	
	A	Revised version of building blocks included in an updated version of final report.	Jul-20
	B	Revised version of the information exchange process included in an updated version of final report	Sep-20
	C	Proposal for Whole System FES code changes	Dec-20
	D	Scoping report for D FES Standardisation	July-20
	E	Implementation Report for DFES standardisation	Dec-20
		P3 Real time data exchange & Forecasting	
	1A	Report (OTS design and specification based on RDPs)	Jun-20
	1B	Report (Connect & Manage design and specification based on RDPs)	Nov-20
	2	Report - Good practice guide covering results from RDPs, issues identified and implementation approach.	2021
	3	Report on ESO DSO Data exchange for operational forecasting	Dec-20
	4	Report on further steps on achieving standardisation on operational metering.	2021
		P4 Data exchange in planning timescales	
	A	T-D Data Exchange Network Code proposals.	Jan-20
	B	Scoping report for DNOs into proposed data transfer mechanisms including CIM.	Jan-20
		P5 Whole System FES – Signposting of Potential Network Capacity Requirements	
	A	Report on Current Approaches to Signposting Network Capacity Shortfalls	May-20
	B	Final Report on signposting capacity with supporting CBA and proposed implementation plan	Oct-20
	C	Implementation Report for Signposting Capacity	Jan-21
WS2		**P1 System Wide Resource Register – Detailed Design and Early Implementation**	
	A	Progress update on completion of System Wide Resource Register Phase 1	Feb-20
	A	Paper summarising any further work required to support DCP350 conclusions	Jun-20
	B	Implementation of SWRR Phase 2	Jul-20
	C	Definition of next Release of SWRR	Dec-20
		P2 Queue Management	
	A	Consultation document on guide and draft process map for Queue Management	Apr-20
	A	Updated Queue Management guide and draft process map document	Sep-20
	A	Implementation Plan	Sep-20
	B	Code change proposals	Sep-20
		P3 Interactivity	
	A	Process Guide and network company implementation plan for conditional interactivity.	Mar-20
	A	Conditional Interactivity Implementation by end 2020, subject to development of processes and systems.	Dec-20
	B	Update Interactivity Process Guide to include T D interactivity process	Sep-20
	C	Update Interactivity Process Guide to include D-iDNO interactivity process	Dec-20
	D	Update Interactivity Process Guide to include D-D interactivity process	Dec-20

WS3		**P1 DSO Implementation Plan**	
		First iteration of DSO Implementation Plan	Jun-20
		P2 Potential conflicts of Interest & Unintended Consequences	
		Updated register	Jun-20
WS4		**P1 Whole System CBA**	
	A	Phase 1 - Recommendations report outlining principles for Whole System CBA and proposed next steps for further phases	Apr-20
	B	Phase 2 - Conclusions and recommendations report, including next steps.	Oct-20
	C	Phase 2 - Conclusions and recommendations report detailing engagement conducted, and stakeholder feedback	Oct-20
		P3 Gas input to Whole System FES	
	A	Proposal outlining scope for further work on gas input to Whole System FES.	Apr-20
	B	Agreement for data sharing process	Aug-20
	C	Scenario/forecast production timeline online document/webpage	Aug-20
		P4 Investment Planning	
		Ongoing update on Trials (10 mins)	N/A
	A	Detailed proposal to progress Whole System Optioneering, indicating scope, potential cost, scale of change and clarifying linages with LAEP	Nov-20
	B	Report outlining detailed processes and supporting templates and committed timescales for implementation.	Dec-20
		P5 Coordinated Gathering Regional Data	
	A	Coordinated Gathering Regional Data Report	May-20
		P6 Current Network Resource Data Analysis	
	A	Network Resource Data Report	Jun-20

5   Workstream 1A – Flexibility Services

5.1   Introduction

Open Networks and the network operators have made great progress on flexibility services since the dedicated Open Networks workstream was launched at the beginning of 2019 following the Flexibility Commitment in December 2018[7].

All of the DNOs have gone to market for flexibility services as an alternative to network reinforcement and Open Networks has defined a standard set of 4 active power DSO services that are being used in DNO procurements. This year, we are planning to further develop standardisation for the next level of detail for those services as well as delivering a standard contract to ensure customers can contract on the same terms across all DNOs. DNOs will continue to trial new services (e.g. reactive power) in their procurements in 2019 and once we have tested and learned what works best from these procurements, we can look to define and converge on new services.

Following the Flexibility Commitment next steps, we are continuing to increase transparency of our procurement activities and we will continue to develop good practice and alignment in 2020 as set out below.

5.2   Workstream Objectives

The following are the key objectives of this workstream:

1. Deliver on the themes and expectations from the Ofgem/BEIS Open letter[8], as set out in ENA's response

2. Standardise processes and methodologies for flexibility procurement across network and system operators.

3. In discussion with platform and flexibility providers, identify and implement actions to facilitate the development of flexibility marketplaces and the participation of flexibility providers, for example common product descriptions, etc.

4. Demonstrate transparent processes for evaluating flexibility tenders, ensuring outcomes are transparent, predictable and justified.

5. Implement measures that provide confidence in independence of decision making

6. Monitoring implementation of Flexibility Commitments on a six monthly basis

7. Raising appropriate change within electricity network companies and/or electricity Codes

8. Identifying any barriers to development where we may need Ofgem or BEIS policy intervention

9. Facilitate markets outside the direct procurement of service by DSOs to allow third parties to develop effective and liquid market platforms for customers to realise value for flexibility

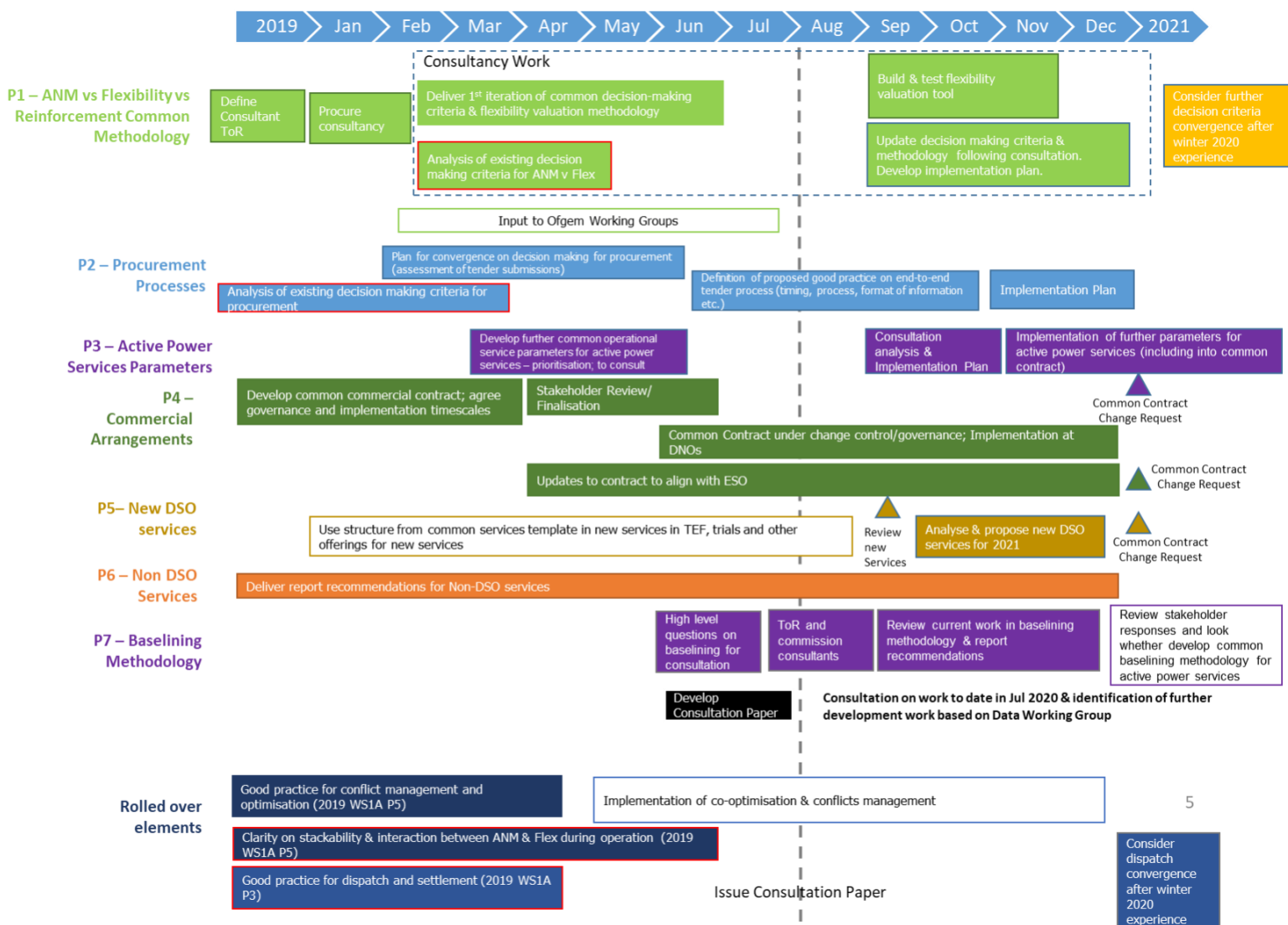---

[7] All ENA Flexibility Commitments can be found here:
http://www.energynetworks.org/electricity/futures/flexibility-in-great-britain.html
[8] The Open Letter and our response can be found here: https://www.ofgem.gov.uk/publications-and-updates/open-letter-ena-open-networks-project-ofgem-and-beis

5.3   Workstream Scope

Recognising that there are a number of areas of work to deliver standardisation and alignment in how flexibility services are procured and delivered, we have made a decision to prioritise the following areas to ensure that we deliver sufficient focus and tangible change in areas of priority for Ofgem, BEIS and industry stakeholders.

The latest view on products for WS1A in 2020 is set out below. We cannot deliver the full scope of these products with the resource deployed on the programme, so we propose to engage external consultancy to deliver a number of these products (flexibility valuation methodology, baselining, legal support for common contract).

Timeline header: 2019 | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2021

P1 – ANM vs Flexibility vs Reinforcement Common Methodology
- Define Consultant ToR
- Procure consultancy
- Consultancy Work: Deliver 1st iteration of common decision-making criteria & flexibility valuation methodology
- Analysis of existing decision making criteria for ANM v Flex
- Build & test flexibility valuation tool
- Update decision making criteria & methodology following consultation. Develop implementation plan.
- Consider further decision criteria convergence after winter 2020 experience
- Input to Ofgem Working Groups

P2 – Procurement Processes
- Analysis of existing decision making criteria for procurement
- Plan for convergence on decision making for procurement (assessment of tender submissions)
- Definition of proposed good practice on end-to-end tender process (timing, process, format of information etc.)
- Implementation Plan

P3 – Active Power Services Parameters
- Develop further common operational service parameters for active power services – prioritisation; to consult
- Consultation analysis & Implementation Plan
- Implementation of further parameters for active power services (including into common contract)

P4 – Commercial Arrangements
- Develop common commercial contract; agree governance and implementation timescales
- Stakeholder Review/Finalisation
- Common Contract under change control/governance; Implementation at DNOs
- Updates to contract to align with ESO
- Common Contract Change Request
- Common Contract Change Request

P5 – New DSO services
- Use structure from common services template in new services in TEF, trials and other offerings for new services
- Review new Services
- Analyse & propose new DSO services for 2021
- Common Contract Change Request

P6 – Non DSO Services
- Deliver report recommendations for Non-DSO services

P7 – Baselining Methodology
- High level questions on baselining for consultation
- ToR and commission consultants
- Review current work in baselining methodology & report recommendations
- Review stakeholder responses and look whether develop common baselining methodology for active power services
- Develop Consultation Paper
- Consultation on work to date in Jul 2020 & identification of further development work based on Data Working Group

Rolled over elements
- Good practice for conflict management and optimisation (2019 WS1A P5)
- Implementation of co-optimisation & conflicts management
- Clarity on stackability & interaction between ANM & Flex during operation (2019 WS1A P5)
- Good practice for dispatch and settlement (2019 WS1A P3)
- Issue Consultation Paper
- Consider dispatch convergence after winter 2020 experience

Flexibility valuation work is planned to align methodology and process and not the values themselves. We should continue to ensure that we review any competition law risks associated with this work. We have included input to the Ofgem Working Groups for ED2 in the high level workplan above and this could be supported by the consultants or provided via network operator representatives on the ED2 Working Groups.

There is the potential to use resource and activities from the TEF projects to provide input to some of these products. We will also take into account and build on the Flexibility Market principles and Flexibility Commitments agreed and published in 2019.

5.4 Workstream Products & Timeline

P1	ANM vs Flexibility vs Reinforcement Common Methodology

Description

This product will deliver a common methodology across DNOs for how they choose between ANM vs Reinforcement vs Flexibility Services to meet network needs and we expect that this will include Cost Benefit Analysis of the different options. This will include the development a common flexibility valuation methodology as part of that decision-making methodology, ensuring consistency and transparency in approach.

As with all Open Networks deliverables, we will publish the methodology on our website and through our bi-annual Monitoring Implementation activity, we will provide visibility of how individual DNOs are utilising it.

The scope for this product will cover the following areas;
   a) Analysis of existing approaches to decision making adopted by all DNOs in choosing between ANM vs Flexibility vs Reinforcement to understand pros/cons of the approaches.
   b) Develop common decision making criteria and methodology for DNOs in choosing between options, taking input from stakeholders on it and updating as required. Any learnings acquired over time, including over the wider 2020 period, will be fed into this through a change management process. We expect that this will include Cost Benefit Analysis of the different options.
   c) Develop a common flexibility valuation methodology as part of this, including:
   - Gather and assess current practice (both in GB and internationally) for valuing flexibility
   - Consider current practice and propose common valuation methodology for flexibility
   - Develop common valuation methodology (including common tool)
   - Confirm future governance

The Product team will define and oversee this development work, with the deliverables completed by external consultants. We will consult on proposals in July. Once the development work from 2020 is completed, we expect the implementation of common valuation and decision making methodology for flexibility by 1 April 2021.

Background
This product addresses a key action outlined in the Ofgem and BEIS Open Letter to the ENA and will provide transparency on how decisions are made in the pre-procurement stage to choose the most suitable solution to meet network needs from options such as ANM, Flexibility services, reinforcement or others (including non-firm connections). In addition to providing transparency, this product will deliver alignment in how DNOs make these decisions.
A joint workshop of Electricity Regulation Group and Open Networks members, held on 21st October 19, identified the requirement for a common valuation methodology for use in the remainder of RIIO ED1 and beyond. It was agreed that this work would be progressed within the Open Networks project under Workstream 1A (Flexibility Services) and this is an integral part of this decision-making methodology.

Outcomes & Benefits

This product will deliver a converged method to how DNOs make decisions around the selection of possible solutions. This consistency in approach will ensure transparency and will help to build confidence in the market.
By developing a common methodology and tool, this Product supports the following ENA Flexibility Commitments:

   1 - Champion a level playing field

   2 - Ensure visibility and accessibility

   3 - Conduct procurement in an open and transparent manner,

   6 - Work together towards whole system outcome.

The developed flexibility valuation tool is expected to be digital and interactive and not require non-standard software licence for operating so that it can be used by ENA, network operators, Ofgem and interested industry stakeholders.

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

- **Impact:** Process change- Impact to current process is expected. No IT/infrastructure changes are expected as a result of this product.
- **Timing:** Within ED1- Recommendations are likely to be adopted within ED1, but must be implemented within ED2. Exact timing may vary between DNOs depending on when they are best placed to facilitate change without disrupting existing procurement cycles. This product will be an input to RIIO-ED2 business planning.
- **Cost:** Low but will vary by DNO as it will depend on the level of change required; however not expected to be high as no new infrastructure is likely to be required.

Delivery Approach & Membership

Recognising the significance of this product and the need to implement this methodology in RIIO ED2, we will work closely with the ENA Electricity Regulation Group (ERG) and Ofgem on this to ensure that the methodology developed is fit for purpose and is developed through engagement and input from the relevant Ofgem working groups. To facilitate this, the product team will feed into the relevant Ofgem groups and ERG to feed their input into the development work.

Public Consultation
Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Analysis of existing decision making criteria and methodologies across DNOs for ANM vs Flexibility vs Reinforcement vs other options** As outlined in our response to the Ofgem and BEIS Open Letter, review and analyse existing processes for how decisions are made in the selection of solutions to meet network's needs (ANM vs Flexibility vs Reinforcement vs do nothing)	Identify different approaches and their rationale. Undertake gap analysis and analyse pros/cons of differing approaches.	3 months	Feb 20 – Jul 20	Analysis of existing practices across DNOs to be included in paper outlining first iteration of common decision making criteria. (Jul 20)	Consultant led with input through DNOs and Ofgem/BEIS reviewed through Workstream development. Stakeholder input via Advisory Group.	Steering Group
B	**Procure Consultants**	Define scope and engage external Consultants	1.5 months	Jan – Mid Feb 2020	Consultants engaged. (Feb 20)	ONP procurement	ENA
C	**Common decision making criteria and methodology** Consultants take forward the findings from current practice, review and analyse further information (particularly flexibility valuation) and develop common decision making criteria and methodologies that can be adopted by all DNOs, taking on board stakeholder feedback.	Consultants to take report above and gather further data on current DNO and ESO practices and wider (e.g. international), including flexibility valuation	2 months	Mid Feb – Mid Apr 2020	Paper outlining first iteration of common decision making criteria and methodology for all DNOs to adopt. (Jul 20 – for consultation)	Workshops/webinars Advisory Group Ofgem	Steering Group
		Develop a first iteration of common decision making criteria and methodology (including flexibility	3 months	Apr 20 – Jul 20			

| | | We expect that this will include Cost Benefit Analysis of the different options | valuation) for stakeholder consultation.

In developing this iteration, it is expected that there will be significant engagement with Ofgem (including the relevant working groups) and ERG. | | | Paper outlining final decision making criteria for all DNOs to adopt and change process for making changes to it in the future.

(Dec 20) | | |
|---|---|---|---|---|---|---|---|---|
| | | | Feed into July 2020 public consultation and review feedback on this. | 2 month consultation window + 1 months for analysis | Jul 20 – Sep 20 | | | |
| | | | Update decision making criteria and methodology based on feedback and agree change management process for future changes. | 4 months | Sep 20 – Dec 20 | | | |
| D | **Flexibility Valuation Tool** | Build tool | 3 months | Sep 20 – Oct 20 | N/A | ERG Ofgem BEIS | Steering Group | |
| | | Testing of tool (user acceptance testing) | 1 month | Nov 20 | Tool available | | | |
| E | **Implementation Plan** | Develop Implementation Plan | 2 months | Nov 20– Dec | Implementation Plan (Dec 20) | ERG Ofgem | Steering Group | |

P2	Procurement processes

Description

This product is a continuation of 2019 WS1A P2 that aimed to deliver further alignment on the end-to-end processes that are associated with the procurement of flexibility services (including pre-qualification) across DNOs as well as plan these to complement ESO processes where possible. For the purposes of this product, we consider the end-to-end processes to start at the stage when A flexibility service has been identified as the optimal solution and the process ends at the stage where a contract has been awarded to a particular flexibility provider.

This product will build on the good practice identified in 2018/19 and the Flexibility Commitment Next Steps published by ENA and will take account of new areas of standardisation that are identified through other WS1A products including P3 and P4 to an overarching view of alignment on the end-to-end procurement process. Focus areas for this product include:

a) Decision making criteria in the procurement stage (how tenders are assessed and awarded)

b) End to end Procurement processes for active power services including alignment on:
- How, when, where and in what format information is made publicly available for upcoming network requirements
- Timing of procuring services, considering timing across different DNOs and the ESO for different services
- Tender process including how tenders are submitted, how long they are open for, how pre-qualification is done and can be simplified etc.
- How and when stakeholder engagement is done pre and post tender.

It is to be noted that there may be aspects of the procurement process where there may be value in testing/applying different approaches across DNOs and the ESO. Where alignment is not considered value adding to meet the needs of local stakeholders or the needs of the network at this point in time, this will be documented by the product, outlining if/when alignment in the future could be developed. We expect that any future work will be identified with a clear owner to progress development to ensure it has the appropriate governance.

Based on stakeholder feedback, we note that the legal requirements for pre-qualification should not be more onerous than those set out in the common contract. The expectation is that the EoI and pre-qualification legal requirements will mirror the T&Cs set out in the common contract and this will be done thorough WS1A P2.

Background
This product is a continuation of 2019 WS1A P2 that defined high level good practice for procurement of flexibility services to meet DSO requirements. This product will build on this further, recognising that as DNOs are gaining more experience in procuring flexibility services, there is a need to revisit good practice and reflect these learnings as well as provide further detail in areas where further capability has been developed.

Outcomes & Benefits
This product will deliver consistency in approach to how DNOs procure flexibility services, simplifying stakeholder participation in the flexibility markets across DNOs. This product will also deliver more transparency in processes that will help to build confidence in the market.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
- **Impact:** Process change- Impact to current process is expected. No IT/infrastructure changes are expected as a result of this product. It is to be noted that the scope for this product is not to develop any platforms.
- **Timing:** Within ED1- Recommendations will be adopted within ED1, however, exact timing may vary between DNOs depending on when they are best placed to facilitate change without disrupting existing procurement cycles.
- **Cost:** <£1M per DNO - Cost will vary by DNO as it will depend on the level of change based on existing processes and is not expected to be significant as no new infrastructure is likely to be required.

Public Consultation
Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Decision making criteria for assessment of tender submission** As committed in our response to the Ofgem and BEIS Open Letter, a review will be undertaken on the existing processes for the assessment and selection of flexibility assets. This element will provide clarity on how this is currently done and will	Continue 2019 work to review existing processes and analyse where differences are.	3 months	Mar 20	Slides or report outlining analysis (Mar 20)	N/A	Steering Group
		Take forward analysis and develop plan for the development of a common decision	5 months	Feb 20 – Jun 20	Report outlining common decision making criteria for assessing tenders (Jun 20)	Advisory Group	Steering Group

	undertake a gap analysis to determine a plan for alignment.	making criteria for the assessing and awarding tenders.			Agreed Implementation timescales for all DNOs (Jun 20)		
B	**Alignment on end to end tender process** This product will review current approaches being adopted by DNOs and ESO in the end to end tender process and will deliver further alignment through good practice in areas where it is considered valuable. Where alignment is not considered value adding to meet the needs of local stakeholders or the needs of the network at this point in time, this will be documented by the product, outlining if/when alignment in the future could be developed. We expect that any future work will be identified with a clear owner to progress development to ensure it has the appropriate governance.	Review existing approaches across all the process steps and undertake gap analysis.	2 months	Jun 20 – Jul 20	Report outlining detailed good practice for DNOs to adopt; Reasoning for not converging on any elements and timescales for reconsidering alignment on them. (Dec 20)	Workshops/ Webinars Advisory Group	Steering Group
		Develop aligned processes for the end to end processes.	3 months	Aug 20 – Oct 20			
		Agree implementation timescales with DNOs.	2 months	Nov 20 – Dec 20			

P3	Active Power Services Parameters

Description
This product will take forward work from 2019 WS1A P2 on the four active power products for DNOs to further align on operational, commercial and technical parameters.

Background
This product is a continuation of work under 2018 and 2019 WS1A P2 that defined four active power service products that all DNOs can procure. In 2019, the team defined a number of requirements for these services such as ramping period, activation period, availability windows etc. and agreed common titles for DNOs to procure these services. As part of the work in 2019, it was identified that these services could be further aligned across networks by standardising more operational, commercial and technical parameters.

Benefits
This product will deliver further alignment in the procurement of active power services and will simplify participation in the market, making it easier for participants to understand products and offer services to multiple markets appropriately.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
Impact: New processes are likely to be introduced. IT/infrastructure changes may be required for some operational parameters (such as those related to dispatch) and to provide data for the facilitation of new markets and identification and management of potential conflicts.
Timing: ED1/ED2. Whist alignment across most parameters is expected for implementation in ED1, there may be some operational parameters that require a significant change or infrastructure change from today and these will need to be taken into account in ED2.
Cost: Cost will vary by DNO as it will depend on the level of change based on existing systems and processes.

| Public Consultation
Yes | | | | | | | |

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Develop further common operational, commercial & technical service parameters for active power services** This product will build on WS1 P2 in 2018 which formed the high level basis for four flexibility service products. Best practice will be established based on how these products have been deployed by each DNO.	Identify further parameters associated with all 4 services and review how each DNO is using them.	1 month	Mar 20	Slides or report sharing analysis (May 20) Paper outlining Implementation plan for alignment on further parameters for active power services. (Jun 20)	Advisory Group	Steering Group
		Undertake gap analysis.	2 months	May 20			
		Develop implementation plan for alignment on these parameters and feed it into WS1A consultation in July.	2 months	May 20 – Jun 20			
B	**Implementation of further parameters for active power services (including into common contract)** This will implement a delivery plan of sub deliverables (a) across DNOs and ESO. Establishing areas of 'quick wins' of consistent parameters that can be delivered.	Review stakeholder feedback from consultation.	1 month	Sep 20	N/A	N/A	Steering Group
		Update implementation plan based on stakeholder feedback if required.	1 month	Oct 20	Revised Implementation plan if required (Oct 20)		
		Raise change into common contract	N/A	Oct 20 onwards	Updated Common Contract (Dec 20)		

P4	Commercial Arrangements
Description	

This product is a continuation of 2019 WS1A P4 and will deliver a common contract for flexibility services that will be adopted by all DNOs and in addition, will identify and implement contract alignment across DSO and ESO, inclusive of conflict management, service management processes and audit alignment.

This product will also define ongoing governance for this common contract and a process to embed further changes that may come from further stakeholder feedback as well as developments through other WS1A products.

Background
This product is a continuation of 2019 WS1A P4 that was initially scoped to deliver good practice for contracts for flexibility services and based on stakeholder feedback, we increased the scope to go beyond good practice and deliver a common contract that will be adopted by all DNOs for flexibility services. This product will continue this work in 2020.

Outcomes & Benefits

The standard contract for flexibility services will:
- Align DNOs and also between DNOs and the ESO and will simplify service provision for providers and will improve market confidence.
- Deliver single contract for customers across all geographies, resulting in less legal review/negotiation for customers across different geographies
- Deliver single contract for use by all DNOs across common procurement processes, resulting in less bespoke effort across applications
- Lead to less variation that will increases certainty, market confidence and is expected to improve liquidity
- Avoid potential conflicts across DSO/ESO services through contractual elements.

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

Impact:
- Legal review
- Amendment to contractual terms implies up-front effort to deliver improvements later
- Process change to current procurement processes to embed common contract, but also the variations that are expected to be necessary in service specific or geographic specific schedules.
- IT changes for any consequential change to procurement platforms/systems as a result of this product.

Timing: (Within ED1):
Recommendations will be adopted within ED1; however, exact timing may vary between DNOs depending on when they are best placed to facilitate change without disrupting existing tenders.

Cost: (<£5M per DNO)
Cost will vary by DNO as it will depend on the level of change based on existing processes and is not expected to be significant as no new infrastructure is likely to be required.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Common contract for all DNOs & Implementation Plan** Continue development of common contract for DNOs.	Review template produced by external legal consultancy and finalise.	1 month	Jan 19	Release 1 standard agreement for DSO services (Mar 20) Implementation Plan (Mar 20)	Advisory Group (Mar 20) Wider stakeholder engagement (Mar-Jun 20)	Steering Group
		Consider feedback and address as required.	2 months	Jan 19 – Feb 20			
		Issue Release 1 of the standard contract Collate implementation plan	1 months	Mar 20			

		Engage with stakeholders, address feedback and propose changes to Release 1 contract.	3 months	Mar 20 – Jun 20			
		Identify key differences between ESO embedded service contracts (FFS/STOR/TRIAD) and produce gap analysis.	2 months	Apr 20-Jun 20			
B	**Alignment with ESO** Contract already in development has alignment with ESO CMZ requirements – scope further alignment (FFR/STOR etc)	Seek to align with industry standard agreement (P4 Product a) with key differences reflected in a specific ESO Schedule	4 months	Jun 20 – Oct 20	Findings from gap analysis (Jun 20) Single agreement for multiple services (Oct 20) Implementation Plan for ESO adoption (Dec 20)	Advisory Group	Steering Group
		Develop implementation plan for ESO adoption	2 months	Oct 20 – Dec 20			
		Identify and define plan for governance around changes in the future to the contract, including defining change windows, ownership, meeting dates, contributing parties, legal support, defined feedback route for stakeholders.	5 months	Jun 20 – Oct 20			
C	**Common Contract under change control/governance** **Report Implementation**	Report on implementation and use of the common contract at DNOs	10 months	Mar 20 – Dec 20	Report outlining governance and change control (Oct 20) Report on where common contract used by DNOs (Dec 20)	Advisory Group	Steering Group

P5	New DSO Services

Description

This new product for 2020 aims to deliver new flexibility products that have been developed consistently across DNOs. This product will cover new flexibility products only, ensuring that all operational, commercial and technical parameters are aligned across DNOs as much as practically possible.

We have defined a firm review point in September 2020 when we will review what additional services (over and above the already defined 4 active power DSO services) have been sought from DNOs. We will review services that have been tendered (e.g. reactive

power services) and consider whether they are mature enough to standardise and therefore define them into a set of parameters and then added to the common contract. In the interim, we expect all DNOs to use the structure/template that was developed as part of 2018 and 2019 WS1A P2 to capture service requirements for new services that are being deployed by DNOs (including through TEF and other trials).

Background

As a result of varying network requirements across GB DNOs, the development of new flexibility products is being carried out in isolation within each DNO to solve individual issues. This is important as DNOs need to go out for services to support system needs and learn by tendering and procuring those services, but if divergent activity continues for similar services, it can result in an inconsistent suite of flexibility products across DNOs and confusion amongst stakeholders. The aim of this product is to have collaborative flexibility product design when new services are mature enough to standardise and then that will set a standard that can be deployed by DNOs as individual networks require it.

Outcomes & Benefits

This product is to be used as a means for flexibility product development consistently across DNOs. The benefit will be that DNOs will be deploying consistent flexibility products across GB system.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
- **Impact:** Process change- Impact to current process is expected as DNOs will be expected to design flex products collaboratively with other DNOs.
- **Timing:** As and when networks issues trigger a need for a flexibility product that has yet to be developed.
- **Cost:** <£1M per DNO - Cost will vary by DNO as it will depend on the level of change based on existing processes and is not expected to be significant as no new infrastructure is likely to be required.

Public Consultation
No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	New flexibility services.	Review further DSO flexibility services Establish network issue, design standard flexibility products and parameters in line with parameters set out in 2019 P2 processes.	2 months	Sep 20 – Dec 20	Common definition and requirements for agreed flexibility product for all DNOs to adopt in 2021. (Dec 20)	Advisory Group	Steering Group
		Raise change proposal to common contract	1 month		Common Contract Change Request (Dec 20)		Steering Group

P6	Market Facilitation – Non DSO Services
Description	

This product will take an iterative approach and will explore the principles/rules of engagement for market participants needed to trade energy locally or exchange capacity and curtailment obligations (as identified in 2019 by the Non-SCR group) within the context of the TEF projects and the BEIS FleX and Power Forward projects. It will also look for opportunities to test the data sets that were identified by 2019 WS1A P6 to enable neutral facilitation of these new markets both pre & post transaction to ensure no detrimental impact on the network. This product will take the learnings from ongoing industry trials and will report progress in mid-2020 and then at the end of the year based on learnings available to date. This work is likely to continue in 2021 to build on this year's work.

Background
This product is a continuation of 2019 WS1A P6 and the work on the Industry Led Non-SCR Access Working Group (P1 & P2) on the exchange of capacity and curtailment obligations.

Benefits
In addition to exploring whether capacity on the network can be released through non-traditional methods, this product will monitor the development of new markets. Incidental benefits should also include possible solutions for; visibility of network actions, identifying opportunities for concurrent value stacking and resolving challenges relating to value conflicts between industry actors.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
Impact: New processes are likely to be introduced by the projects. IT/infrastructure changes may be required to provide data for the facilitation of new markets and identification and management of potential conflicts.
Timing: The project will align with the timescales of the TEF projects and the BEIS FleX and Power Forward projects in order to provide insight in to ED2. Due to the length of these projects the product is likely to continue in to 2021.
Cost: Cost will vary by DNO as it will depend on the level of change based on existing systems and processes.

Public Consultation
Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Test principles/rules of engagement against planned market simulations in the TEF and the BEIS Flex and Power Forward projects	Identify appropriate market simulations iterative with current trial approaches. Possibly a gap analysis report looking at scenario/market model coverage – helping to demonstrate the value from running multiple projects.	6months	Jan 20 – Jun 20	Paper summarising the following: • Proven principles/rules of engagement • Minimum requisite datasets pre and post transaction for network stability • Plan outlining any further work for all DNOs to make the minimum requisite data sets available. • Plan outlining further work required in	TEF and the BEIS Flex and Power Forward project participants	Steering Group
		Compare principles/rules of engagement from Non-SCR work	12 months	Jan 20 - Dec 20			
		Update principles/rules of engagement accordingly	12 months	Jan 20- Dec 20			
B	Validate pre-transaction datasets utilising trials in the TEF and the BEIS Flex	Identify appropriate market simulations iterative with current trial approaches.	6 months	Jan 20 – Jun 20			
		Compare pre-transaction datasets from WS1A P6 2019	12 months	Jan 20- Dec 20			

		Agree minimum requisite pre-transaction dataset	12 months	Jan 20-Dec 20	Open Networks to allow market participants to provide minimum requisite data sets to the DNO to ensure network stability. Progress Report June 2020 and Summary Report Dec 2020		
and Power Forward projects							
C	Validate post-transaction datasets utilising trials in the TEF and the BEIS Flex and Power Forward projects	Identify appropriate market simulations iterative with current trial approaches.	6 months	Jan 20 – Jun 20			
		Compare post-transaction datasets from WS1A P6 2019	12 months	Jan 20-Dec 20			
		Agree minimum requisite post-transaction dataset	12 months	Jan 20-Dec 20			

P7	Baselining Methodology

Description

Undertake assessment of current work in the industry that relates to the development of a baselining methodology for measuring delivery of services through third party assets and recommend further actions DNOs/DSOs could take to achieve a consistent approach.

Background

This work was identified during gap analysis carried out in the 2019 ON WS1A programme under Product 3 – Dispatch & Settlement. To date each DNO/DSO has developed their capability in flexibility supporting differing methodologies to establish baselines. While DNOs experience operating flexibility is still in its infancy it is unpractical to establish good practice. However, it is agreed that any possible alignment in this area will benefit both providers and the DNO, therefore assessment of existing practices should be undertaken.

Outcomes:

- Collate details of current industry baselining practice
- Assess advantages and applicability to DSO Flexibility operations
- Recommend practicable methodologies/s
- Recommend any further actions that could be taken to achieve consistency

Benefits:

- comprehensive assessment avoids duplication
- view to align methodology supports stakeholder concerns.
- Stakeholder opportunity to provide to input at an early stage
- aligned methodology would considerably increase provider confidence in D-flex.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
- Impact: None at this stage, assessment and recommendations only

Public Consultation
Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Establish success criteria and detailed scope	Agree common success criteria	1 month	Jun 20	Scope document. Consultation questions. (Jun 20)	Input into consultation planned for Aug	Steering Group
		Produce relevant questions for WS1A July public consultation	1 month	Jun 20			
		Define scope for consultancy support & procure consultants	2 months	Jun 20 - Aug 20			
B	Information gathering & assessment – Consultant led.	Research existing baselining practices	2 months	Aug 20 – Sep 20	N/A	As identified through assessment	N/A
		Assess responses to WS1A July consultation	1 month	Sep 20			
		Engage further with any existing industry expertise that is identified.	2 months	Aug 20 – Sep 20			
C	Recommendations	Product team and Consultant to assess and agree recommendations from Findings.	1 month	Nov 20	Findings & Recommendations report (Dec 20)	As identified through assessment	Steering Group
		Present finding and agree next steps	1 month	Dec 20			

5.5   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 – ANM vs Flexibility vs Reinforcement Common Methodology

    - P4 – Commercial Arrangements

    - P7 – Baselining Methodology

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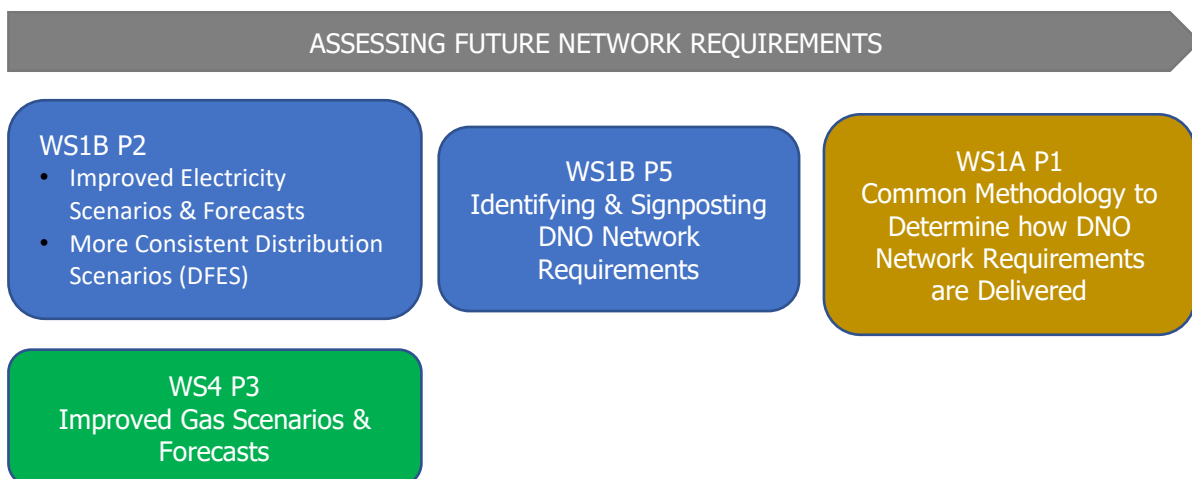
6.1 Introduction

Improving Transmission and Distribution interactions has underpinned the development work under Open Networks since the beginning. We have implemented changes to the Network Options Assessment (NOA) and Future Energy Scenarios (FES) processes to take account of more regional data in 2019 and we have further improvements planned for the 2020 processes.

Network operators have been trialling improvements in operational data exchanges between Transmission and Distribution as part of the Regional Development Programmes and this work will continue in 2020, as well as monitoring the implementation of the Modification Proposals to be raised for change to support planning data exchanges.

6.2 Improved Scenario Planning

There are a number of products relating to improved scenario planning as this is a key area of work for us and for our stakeholders. These are WS1B P2, WS1B P5 and WS4 P3. These products aim to improve the quality of future energy scenarios and forecasts and the consistency of how network companies produce and publish these. These products are important stages in the assessment of future network requirements (e.g. the need for network reinforcements or flexibility services).

WS1B P2 focusses on improved electricity scenarios and on achieving greater consistency across the distribution scenarios produced by DNOs. WS1B P5 focusses on how electricity network requirements are identified and signposted. As part of WS4, Product 3 extends scenario improvements to include gas. By producing improved scenarios and identifying network requirements, these WS1B P2 and P5 are precursors to WS1A P1 which is considering how network requirements are best met. This relationship is illustrated below.

ASSESSING FUTURE NETWORK REQUIREMENTS

WS1B P2
- Improved Electricity Scenarios & Forecasts
- More Consistent Distribution Scenarios (DFES)

WS1B P5
Identifying & Signposting DNO Network Requirements

WS1A P1
Common Methodology to Determine how DNO Network Requirements are Delivered

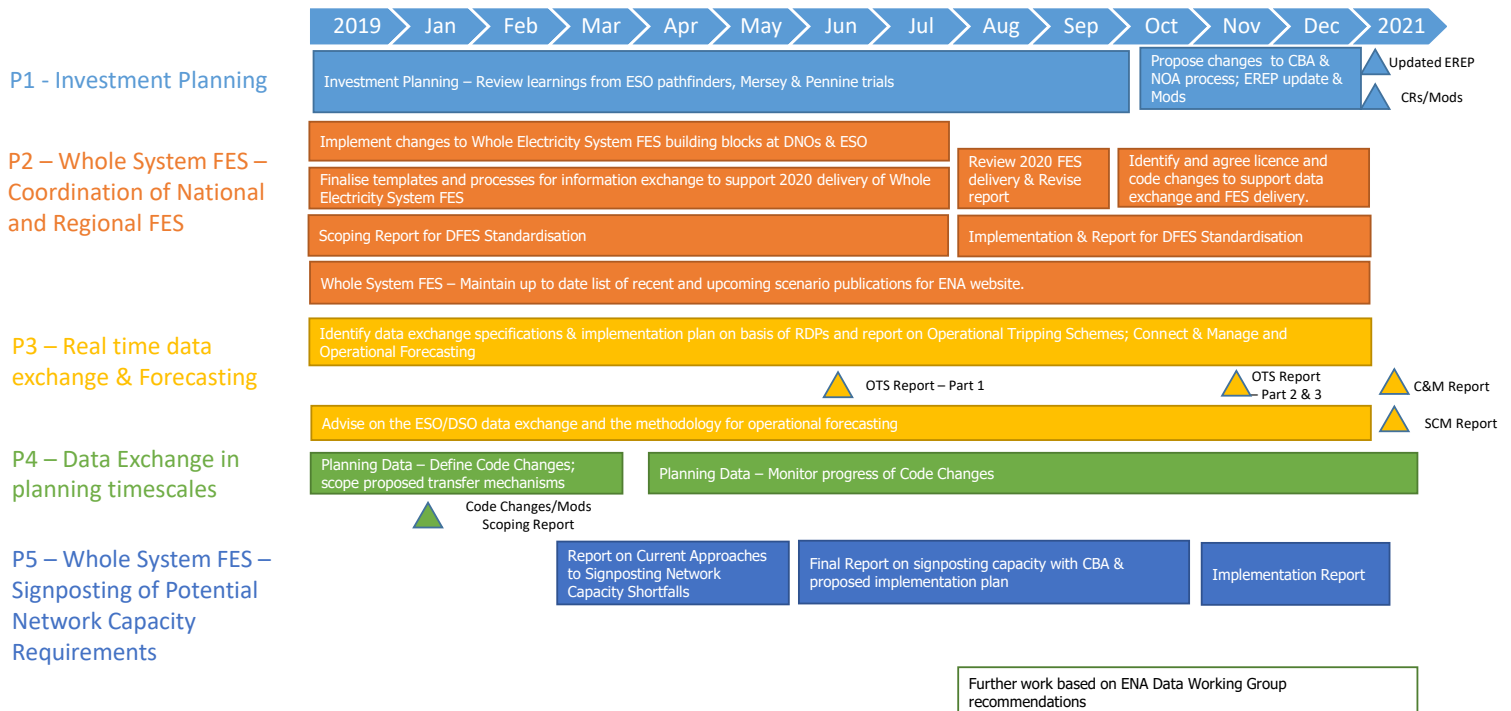**WS4 P3**
Improved Gas Scenarios & Forecasts

6.3 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.

6.4 Workstream Scope

This workstream will continue to build on 2019 areas of work to undertake work to further develop and implement improvements through greater T D coordination. It is expected that through the findings of the ENA Data Working Group, there will be additional work to progress in this workstream to further streamline data for T D exchange in operational planning timescales.

It is to be noted that a number of products in this workstream are taking learnings from the Regional Development Programmes (RDPs) (particularly P3) and Pathfinder projects (particularly P1) to establish recommendations and good practice and therefore the timings of these WS1B products are closely linked to these programmes.

6.5 Workstream Products

P1	Investment Planning

Description

This product will continue further development of the Regional Network Options Assessment (NOA) methodology. The learning from market based trials will inform on an updated CBA methodology. This will facilitate the assessment of a full range of build, non-build and flexibility solutions.

Background

This work builds on WS1B Product 1 work started in 2018 and developed during 2019. It aims to put in place a Whole System methodology for the delivery of efficient and economic investment planning across distribution and transmission networks.

The pathfinder projects to date have had broad customer participation in providing a range of technical and commercial solutions to transmission issues that would, in the past, only have been resolved by transmission owner solutions. These developments have not been without challenges where we see the learning by doing approach of the Pathfinders teasing out specific issues. These issues are in two broad groups, 'funding' and 'level playing field', both of which arise for different participants due to a combination of licensing, frameworks and levies that exist within the industry. Throughout the next financial year, we will feed back on attempts to address the funding challenges and how ways to level the playing field are being addressed, seeking to generate the best possible outcome for consumers

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

Indicative Impact for licensees:
- Impact: Process change/IT change/Resource
- Timing: ED1/ED2+
- Cost: variable

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Market Testing *Review learnings from Mersey & Pennine High Volts pathfinders*	Monitor ongoing flexibility tenders (NGESO pathfinders)	10 months	Jan-Oct 2020	No ONP publication	Via NGESO procurement activities	None
		Review learnings and ESO to update CBA methodology accordingly	6 months	May-Oct 2020			
B	Whole System CBA *Update CBA to include market based solutions*	Propose changes to CBA to incorporate build, non-build and flexibility options	3 months	Oct-Dec 2020	Update to EREP Appropriate Change/ Modifications	As appropriate	Steering Group
		Consider impacts on codes, licences, etc. and propose any changes	3 months	Oct-Dec 2020			
		Raise changes/ modifications		Dec 2020			
C	Industry dependent reviews *i.e. following changes/decisions on funding mechanisms which may further inform the approach to costing solutions*	Consider impacts from changes to regulatory frameworks, licences, etc.	12 months	Jan-Dec 2020	Update to EREP	As appropriate	Steering Group
		Review and update EREP 'Guideline to Whole System Investment Planning' (if required)	3 months	Oct-Dec 2020			

P2	Whole System FES – Coordination of National and Regional FES

Description

This product will complete the detailed process development for coordination of National and Regional FES. This builds on work carried out in 2019 including the "Building Blocks" agreed for FES and the timeline agreed for support to the GB FES production. Following publication of the 2020 GB FES, the team will review how effective the use of "Building Blocks" has been and the improvements to the regional apportionment of GB FES scenarios. As part of this, the team will consider the need for GB network code updates to support future work.

P2 will also agree and implement further standardisation of network company Distribution Future Energy Scenario (D FES) scenarios and related publications. Recognising that there are various degrees of standardisation, this area of work will kick off with a scoping deliverable to identify and seek agreement on elements where DNOs will standardise their

approach, timing or format of DFESs. As part of this scoping, the product team will take account of industry stakeholder views in the recommendations.

The output of the first part of the D FES standardisation work will be proposals for change and these will need to be approved appropriately within the network companies so that we can then move to the second part, which will be implementation. In delivering proposals for change, the product team will consider areas such as:

•The use of a single set of agreed GB scenario(s).

•How to apply the GB scenarios to DNO regions and the use of additional regional sensitivities.

•How to manage the differences between regional and GB scenarios and explain them in a common manner to stakeholders.

•How DNOs interact with their stakeholders to bring together assumptions. Stakeholder engagement actions are likely to sit with DNOs to action appropriately, but we may be able to share good practice at least.

•The structure of a D FES template document.

•The alignment of D FES publication dates.

In developing recommendations, the product team will consider how to represent regional variations and requirements of local stakeholder groups as well as any resourcing impacts that these proposals may have. A high level impact assessment will need to be developed to understand the potential costs, benefits and implementation timelines for any standardisation in advance of any agreement to an agreed approach. Once an approach has been agreed, the product team will undertake detailed process development to support its roll out across DNOs.

Background

WS1B P2 has delivered significant changes through 2019 to develop approaches to electricity Whole System FES. P2 has supported regional input to the 2020 FES and improved the consistency and comparability of network company FES by establishing common "Building Blocks" for the development of scenarios by network companies. These "Building Blocks" will be adopted by all DNOs in their upcoming D FES publications from 2020. WS1B P2 will continue to provide closer DNO input to the development of the 2020 GB FES and agree how input is consolidated going forward.

Through the 2019 work, further opportunities have been identified for alignment across DNOs as well as with GDNs. Additional work has been included in 2020 across products WS1B P2, P5 and WS4 P3. WS1B Product 2 will also look at further ways in which D FES scenarios and publications can be standardised across DNOs. This includes the scenarios that are produced, the timescales for scenario publication and the way in which D FES publications are structured.

An up to date view of the scenarios published and being developed by network companies will also be maintained.

Outcomes & Benefits

Network companies will agree a consistent set of Future Energy Scenarios that recognise potential technological, economic and political changes; these scenarios will be applied nationally to assess the impacts on the transmission system and regionally to assess the impacts to the distribution networks. Presentation of the scenarios and their impacts in a consistent manner will allow network company customers, investors and other stakeholders to more easily compare scenarios at national and regional level and in different publications. This will also provide a basis for signposting potential network capacity shortfalls in a more consistent and transparent way than is the case at present.

DNOs are expected to use the "Building Blocks" in their D FES activities from 2020 and this will be monitored in the Monitoring Implementation activities. When other elements of standardisation are agreed, these will also be monitored.

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

- Impact: This will depend on the agreed D FES approach to standardisation. Revised processes and timescales for publications are likely to increase the costs of D FES production.

- Timing: This will depend on the agreed approach. The "Building Blocks" will be implemented in 2020. If further elements of standardisation are agreed, these will be implemented as soon as practicable.

- Cost: The costs of implementing "Building Blocks" and providing additional support to GB FES production are expected to be relatively low. Further activities to standardise D FES could be higher cost as additional resources may be required and additional constraints will be introduced. The costs will vary by company.

Public Consultation Not expected at this stage, however, this may change based on the scoping exercise.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval

|							
A	Review and revise the "Building Blocks" (BB) once the information exchange process is completed for GB FES 2020.	Review ongoing use of BB's and processes to support GB FES 2020. Review the quality of the data provided for BBs in GB FES 2020 and the processes for submission and quality checking. Agree adequate level of granularity required. Amend BBs if required.	7 months	Jan 20 – Jul 20	Revised version of BBs included in an updated version of final report (Jul 20)	N/A	Steering Group
B	Review and revise the T-D information exchange process.	Review the process undertaken for GB FES 2020 to assess: 1.Timeline 2.Tasks 3.Resources 4.Process	2 months	Aug 20 – Sep 20	Revised version of the information exchange process included in an updated version of final report (Sep 20)	Webinar to update on revised process.	Steering Group
C	Licence and code changes to support data exchange and ongoing FES delivery.	Review need for code changes to support ongoing GB FES work. Draft code modification proposals as needed.	3 months	Oct 20 – Dec 20	Proposal for the code change (Dec 20)	Meeting/webinar to communicate the changes and to help consider the approach for code change.	WS1B
D	Scoping activity for D FES Standardisation.	Identify and assess options for greater standardisation across DNOs, seeking input from industry stakeholders. Undertake high level CBA to aid understanding of the scale of change, potential costs, timelines for implementation and additional value to stakeholders and industry. This will help compare broad options at this scoping stage with the status quo. Document and present options and recommended approach to Steering Group and Ofgem for approval.	7 months	Jan 20 – July 20	Scoping report outlining options considered for further standardisation of D FES, CBA, recommended approach and next steps for delivery. (July 20)	Advisory Group Potential external stakeholder groups	Steering Group Ofgem
E	Implementation of D FES Standardisation	Having agreed the approach to standardisation, implement this across network companies. Produce an updated D FES publication timeline indicating when companies will publish standardised scenarios. Network companies to publish standard scenarios. ENA to maintain latest view on scenario production and the extent to which network companies have taken on the standard approach.	5 months	Aug 20 – Dec 20	Updated D FES publications timeline (Aug 20). Standardised scenarios and publications from each network company (as per timeline agreed in July 2020). Monitoring report from ENA ON (Dec 20).	Ongoing publications.	Steering Group

P3	Real Time Data Exchange & Forecasting

Description

This product will continue to review ongoing trials to determine and document 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 distribution connected resources.

The timing for the reporting of outcomes in this product will depend on the timing of the Regional Development Programmes being used to test data exchange and the case studies The key outcome from this product is the learning and potential solutions for data exchange. Please see the diagram below for sequence of work.
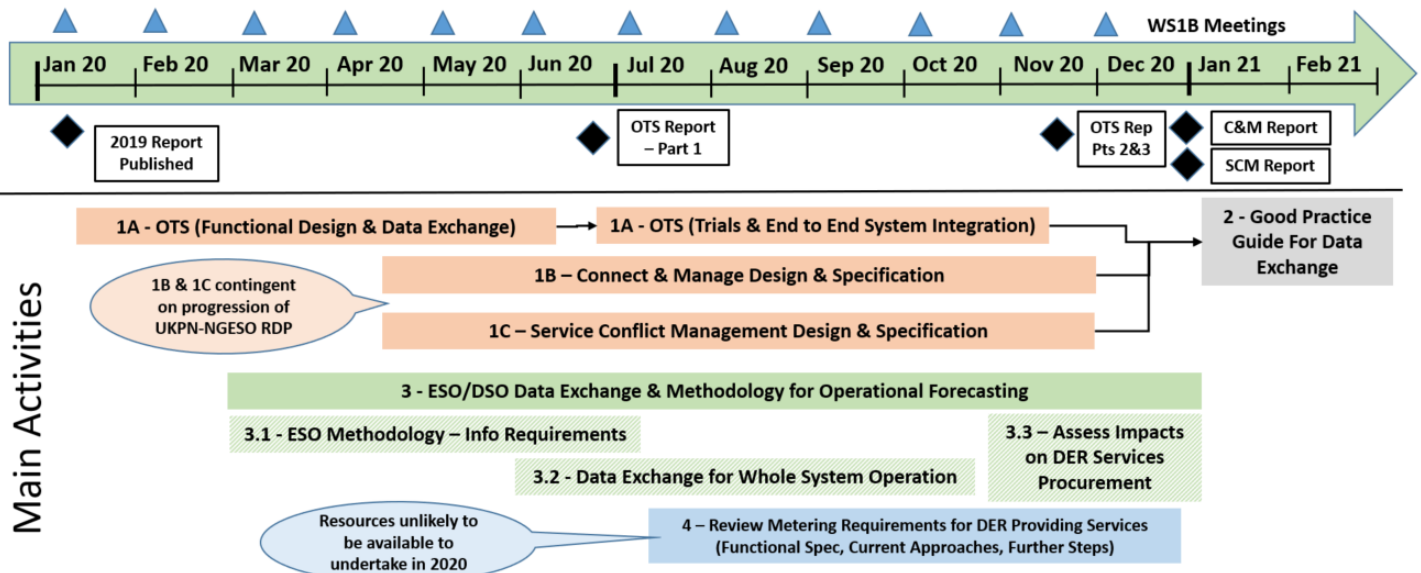
Background

This work builds on the WS1B Product 3 work carried out through 2019. It will draw on ongoing trials including regional development programmes to identify the data exchange requirements for different levels of DSO functionality.

Outcomes & Benefits

Well defined and tested solutions will be available for use where greater ESO-DSO interaction is required.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
- Impact: Process change/IT change etc.
- Timing: (ED1/ED2)
- Cost: Will depend on preferred methods and scale of change that they require across each company.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
1	Identify data exchange specifications & implementation plan for Whole System activities based on Regional Development Programme (RDP) outcomes.	**[A]** Operational Tripping Scheme (OTS) design & specification to secure N-3 contingencies on the transmission network. 1. Document OTS requirements including functional & data exchange. 2. Review the OTS algorithm and review trial results. 3. Review end-to-end ESO-DSO system integration and go-live. This work will draw on ongoing OTS work including	11 months (Start Jan 2020).	Jan - Nov 2020	. Activity 1 Report Jun 2020 Activities 2 and 3 Report		Steering Group

	(This will draw on the implementation of OTS, C&M and Service Conflict Management solutions through RDPs. There is a dependency on ESO-DNO commercial agreements.)	implementations in the UKPN, WPD and SSEN areas. An initial report will focus on activity 1. This will be extended to cover activities 2 and 3 when OTS implementations are further progressed.			Nov 2020		
		[B] Connect and Manage (C&M) design & specification. 1. Document C&M requirements including data exchange & <u>dispatch mechanism</u> approach. Cover: a) Stage 1 DSO Optimisation. b) Stage 2 DSO Optimisation. c) Stage 3 DSO Optimisation. d) ESO headroom/footroom. 2. Review C&M algorithm (a-d) and trial results. 3. Review end-to-end ESO-DSO system integration and go-live.	12 months (Start Jan 2020).	Jan - Dec 2020 to achieve 1a & 1d. (1a &1d are minimum results).	1-3. Report.		
		[C] Service conflict management design & specification: 1. Document requirements including data exchange & <u>implementation</u> approach. a. Stage 1 DSO Optimisation. b. Stage 2 DSO Optimisation. c. Stage 3 DSO Optimisation. d. ESO headroom/footroom. 2. Review Service Conflicts algorithm (a-d) and trial results. 3. Review end-to-end ESO-DSO system integration and go-live.	12 months (Start Jan 2020).	Dec 2020 to achieve 1a & 1d. (1a&1d are minimum results).	1-3. Report.		
2	Develop a good practice guide for the implementation of data exchange specifications for OTS, C&M and management of service conflicts.	Produce a good practice guide covering the results obtained, the benefits, the issues identified and the implementation approach. (Dependency on sub-deliverables 1A, 1B and 1C being complete).	2 months (after full completion of 1A, 1B and 1C)	2021, therefore not in this workplan – highlighted for transparency	Report		Steering Group

| 3 | Advise on the ESO/DSO data exchange and the methodology for operational forecasting. | 1. Describe ESO forecasting methodology, confirm the information and data required to forecast demand and generation. Ensure consistency between ESO and DSO forecasting methodologies.
2. Following real-time delivery of N-3 OTS, C&M and Service Conflicts empowered by data exchange and ESO/DSO system coordination, assess:
  a. what data exchange is required to achieve desired forecasting results.
  b. how operational forecasting can better inform ESO/DSO whole system operation.
  c. inputs/outputs of information/data required for forecasting algorithms.
(Sub-deliverable 2 is dependent on sub-deliverables 1B and 1C.)
3. Assess how the availability of network forecasts empowered by data exchange could change the ESO & DSO procurement of services from DERs. | 12 months

(Start Jan 2020). | Dec 2020 to achieve part 1 as a minimum. | Report | | Steering Group |
| 4 | Review metering requirements for DER providing services to the ESO and DSOs and assess potential for standardisation. | 1. Create a single functional specification (information & data exchange mechanisms) to cover the operational metering of ESO & DSO services.
2. Review current approaches to the operational metering of services (e.g. Data Concentrator) and the extent to which these can meet the functional requirements.
3. Recommend further steps on operational metering. | 6 months | 2021

We are unlikely to be able to pick up development of metering requirements under WS1B P3 this year due to priorities for resourcing | Report | | Steering Group |

P4	Data Exchange in Planning Timescales

Description
This product will complete work to i) review data exchange mechanisms and, ii) to raise network code modifications for revised planning data exchange requirements.

Background
This work builds on the WS1B Product 4 work carried out through 2019.

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.

Indicative Impact for DNOs (to current process/infrastructure and associated timings & costs)
- Impact: Revised processes for T-D data exchange and possible introduction of IEC CIM standard and an associated secure data transfer system.
- Timing: Subject to code changes being agreed, the revised planning data exchange requirements are likely to begin from 2021.
- Cost: The planning data changes will increase data exchange volumes across network companies and could require a small increase in network company resources in this area and investment in IT infrastructure

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
	Public Consultation No consultation via Open Networks. The network code changes would involve wider consultation.						
A	Complete network code proposals and support code working groups.	Liaise with network code groups (Grid Code & Distribution Code) and provide change proposals for the agreed planning data exchanges. Support the network code working groups in assessing and reporting on the proposals .	3 months	Jan – Mar 2020	Network Code proposals. Updates to WS1B & Steering Group	Via network code consultations	WS1B
B	Finalise scoping report for future data exchange methodologies.	Complete a scoping report for DNOs into proposed data transfer mechanisms including CIM.	3 months	Jan – Mar 2020	Report	None proposed	Steering Group

P5	Whole System FES – Signposting of Potential Network Capacity Requirements

Description

Product 5 is an additional area of work for 2020 that follows from the scenarios produced through Product 2. The objective is to improve how DNO network capacity shortfalls and forecast network requirements are described and publicised to the wider market.

Different approaches to the identification of capacity requirements are currently used by network companies and different methods are used to signpost network capacity shortfalls outside companies. A standard approach to how shortfalls are identified (e.g. methods for application of scenarios to network simulations) and signposted could help industry participants to identify and bring forward more effective options to address shortfalls. This can build on the distribution system FES (D FES) scenarios produced through P2.

The work will review how DNOs currently publicise system requirements and identify good practice, whether there is value in standardising the approach to signposting requirements, or whether there is value in different approaches. A common approach of signposting where network reinforcement/ANM/Flex might be required should be proposed. This should include the level to which shortfalls are identified on DNO networks (e.g. at GSPs, on 132kV circuits, at 33kV etc).

Background

WS1B P2 has delivered work through 2018 and 2019 to identify and develop approaches to electricity Whole System FES. Further standardisation of D FES will be taken forward under WS1B P2 in 2020. These D FES scenarios and related publications should provide a more consistent and transparent basis for identifying network capacity shortfalls.

If capacity shortfalls can be identified clearly, and if these can be signposted to industry participants, this will help stakeholders understand the value their developments might bring to networks.

Outcomes & Benefits

Specific outputs include a short report on how DNO's identify and signpost capacity shortfalls at present (e.g. shortfalls against all scenarios or against a single forecast), and the pros and cons of different approaches. The team will liaise with stakeholders to help weigh up different approaches and whether a single approach to signposting should be introduced. Changes will be recommended and, if there is value in using a standard approach, this will be proposed for adoption by all DNOs. The team will support any further detailed process development and roll-outs within DNOs.

The potential benefits to industry stakeholders are more straightforward and more transparent identification of network capacity shortfalls across different DNO areas.

The deliverables will include a report comparing current approaches, a proposal for changes and an implementation plan to deliver change across DNOs. Code changes may be required and there is likely to be interaction with Long Term Development Statements (LTDS).

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

- Impact: This will depend on the agreed approach
- Timing: This will depend on the agreed approach
- Cost: This will depend on the agreed approach

Public Consultation   Not expected at this stage, however, this may change based on the scoping exercise.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Current Approaches to Signposting Network Capacity Shortfalls	Review all existing DNO approaches to identifying and signposting network capacity shortfalls. Include: • Links to D FES scenarios or forecasts. • Level at which shortfalls are identified (e.g. GSPs, 132kV circuits.) • Identify linkages to LTDS	3 months	Mar 20 – May 20	Short report detailing existing approaches to how DNO identify and signpost capacity shortfalls. (May 20)	Advisory Group External stakeholder groups	Steering Group Ofgem
B	Compare Options for Signposting & Recommend Approach	Compare options for signposting network capacity requirements. Document and present options and recommended approach to Steering Group and Ofgem for approval. Include: • Comparison of different approaches. • Linkages with FES / forecasts. • Stakeholder liaison to help estimate benefits. • High level costs for each DNO. • Proposed approach and implementation plan.	6 months	May 20 – Oct 20	Final report with supporting CBA and proposed implementation plan. (Oct 20)	Advisory Group External stakeholder groups	Steering Group Ofgem
C	Support and monitor implementation.	Support implementation of recommended signposting across DNOs. ENA to monitor how DNOs are implementing the agreed approach.	3 months	Nov 20 – Jan 21	Monitoring report (Jan 21)	Advisory Group	Steering Group Ofgem

6.6   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.

<u>Timelines</u>

- The timeline for P3 Real Time Data Exchange and Forecasting is dependent on the delivery timescales of the RDPs and the current timescales are based on the RDPS being completed in 2020.

- There are some 2021 activities identified in the description for P3 above to give an indication of next steps, but these will not fall in the scope of 2020 work.

7 Workstream 2 –Customer Information Provision & Connections

7.1 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 implement the new levels of visibility provided by the System Wide Resource Register in 2020 and following the successful agreement of principles to improve queue management and interactivity processes, we will now progress the definition and implementation of more detailed processes.

7.2 Workstream Objectives & Customer Benefits

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.

7.3 Workstream Scope

WS2 will continue to support customer information provision through the SWRR and will take forward improvements to the connections queue management and interactivity processes identified in 2019.

7.4 Workstream Products

P1	System Wide Resource Register

Description

This product will continue to support the individual DNOs with the rollout of the agreed System Wide Resource Register (SWRR) to provide visibility of resources >1MW that are connected to their network as well as the reinforcement queue. This product will also consider any further enhancements to the SWRR to improve information provision including future work from any output of the Data Working Group or Data Task Force outputs (e.g. any Office of National Statistics resource register).

Background

In 2019, all DNOs committed to implementing Phase 1 of their resource registers by January 2020. This would include all network resources >1MW and information on the network services being provided by these resources. The full scope of the resource registers, including information on network reinforcements, is targeted for completion by July 2020 as part of Phase 2.

Outcomes & Benefits

The SWRR 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 for Phase 1 and Phase 2. Depending on scale of change for any further phases identified, it may extend to ED2.
- Cost: <1M per DNO for Phase 1 and Phase 2. Cost for any further phases will depend on the scale of change identified for further improvements.

Public Consultation

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Implementation of Phase 1 & outcomes from DCP350** Ensure rollout of Phase 1 of the SWRR, progress legal advice (including as provided through the RecorDER project) and raise D code modification as required to support implementation. *Note: Information that is published in Jan 20 may not be complete nor completely accurate due to inconsistences in existing DNO records.*	Support population of templates by DNOs to ensure consistency and address any issues.	1 month	Jan 20	Progress update on completion of Phase 1 (Feb 20) Paper summarising any further work required to support DCP350 conclusions (Jun 20)	Advisory Group	Steering Group
		Continue to support DCP350 DCUSA modification.	6 months	Jan 20–Jun 20			
		Identify any support or further work that may be required based on DCP350 outcomes for incorporation into Phase 1 or Phase 2 as appropriate.	4 months	Mar 20 – Jun 20			
B	**Implementation of SWRR Phase 2** Ensure implementation of Phase 2 of the SWRR	Complete review of data field descriptors	2 months	Feb 20-Mar 20	Report implementation of Phase 2 (Jul 20)	Advisory Group	Steering Group
		DNOs to develop methodologies to report on reinforcement works	6 months	Jan 20-Jun 20			

	and develop templates, processes and address any issues to support the rollout.	Publish 1st reinforcement tables	1 month	Jul 20			
C	**Define further improvements** Identify any further improvements that can be made to the SWRR beyond Phase 2. Improvements to consider may include: • Expanding register to include DER *<1MW* • *Inclusion of ESO, TO & iDNO registers* • *Development of central platform to host all company registers.* (Note - Given wider industry developments, the scope to be taken forward under this product element will be reviewed through 2020.)	Assess expanding register to below 1MW and identify new threshold if appropriate	4 months	May 20-Aug 20	Definition of next release of SWRR (Dec 20)	Advisory Group	Steering Group
		Assess whether hosting information on a central platform is feasible	4 months	Jun 20-Sep 20			
		Develop proposals for development of central platform if appropriate	4 months	Sep 20-Dec 20			
		Expand existing registers to include iDNO and TO registers if appropriate (Note - Further activities will consider wider industry developments including DCP 350, work to deliver EDTF actions and innovation projects such as RecorDER and Residential Response.)	3 months	Jun 20-Aug 20			

P2	Queue Management
Description This product will continue work delivered under 2019 WS2 P2 to take forward the development and implementation of the minded to position on Queue Management. This product will consult with stakeholders further to address any concerns on the application of milestones. The diagram below summarises the planned activities to deliver this.	
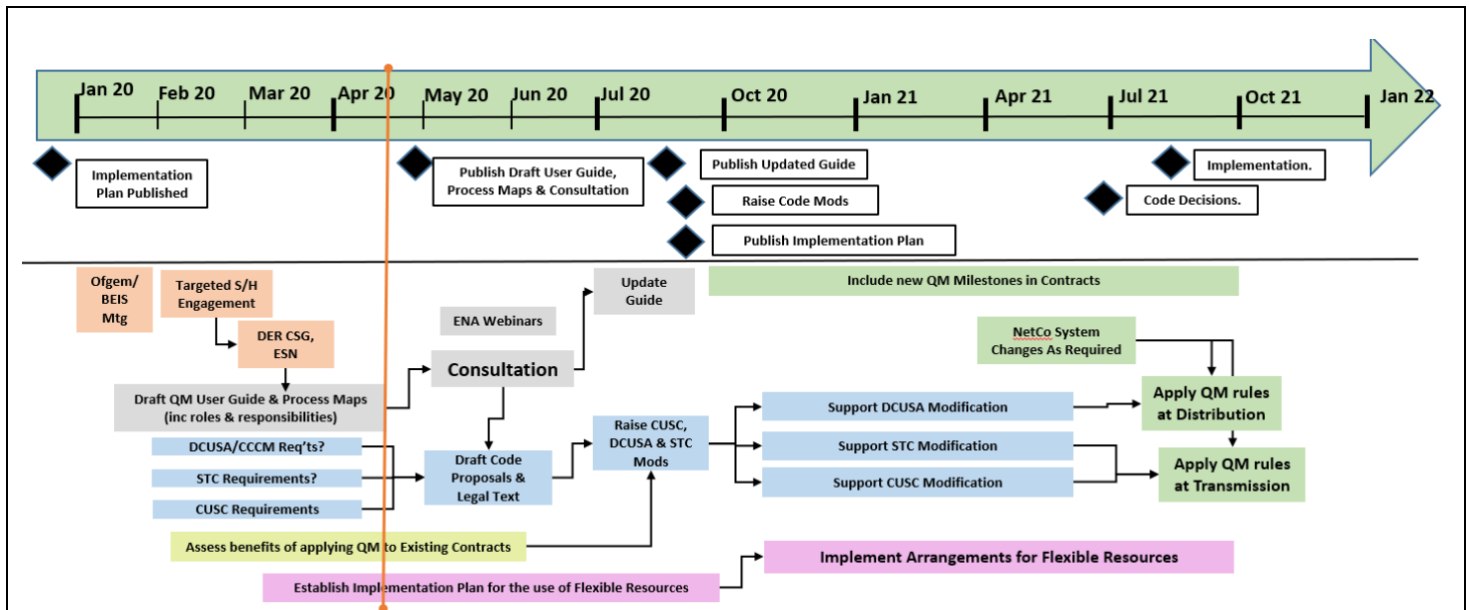
Background

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 in 2018 and 2019, we worked with industry to conclude on action 1.6 of the Smart Systems and Flexibility Plan through the development of a minded to position on how flexible resources are treated in a connections queue and application of milestones.

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

Yes

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	**Develop user guide & process maps** The user guide and process maps will outline the detail of how the minded to position identified through 2019 WS2 P2 on queue management will work. This guide will outline detail behind how the milestones and tolerance will apply to customers. It will also	Map over minded to position and identify roles and responsibilities.	3 months	Jan 20 – Mar 20	Consultation document on guide and draft process map document (Apr 20) Updated guide and draft	Public Consultation.	Steering Group
		Develop first draft of process map to outline interactions between all parties involved.	3 months	Jan 20 – Apr 20			

	outline the interactions required between the DNOs, TOs and ESO. Note: Implementation of process map for tolerances and milestones is dependent on the completion of appropriate changes to CUSC, DCUSA and STC. We will highlight any approaches that can be adopted in the interim (including promotion of flexibility) as part of the implementation plan.	Consult on user guide and process map.	8 weeks consultation	May 20 – Jul 20	process map document (Sep 20) Implementation Plan (Sep 20)		
		Take stakeholder feedback on board and update user guide and process map. Develop implementation plan to support the roll out of these processes	4 months	Jun 20 – Sep 20			
B	Raise and monitor CUSC, DCUSA/CCCM and STC changes to support revised processes. Note: These modifications will be needed to enable the application of queue management as the movement of resources will affect customer charges and liabilities.	Draft and raise CUSC, DCUSA/CCCM and STC modifications to support	4 months	Jun 20 – Sep 20	Code change proposals (Sep 20)	Discussion with Code Administrators	N/A
		Handover to CUSC governance.		Oct 20			
		Ongoing monitoring to ensure progress.		Oct 20 onwards			

P3	Interactivity

Description

This product is a continuation of 2019 WS2 P3 and will further develop interactivity processes through development in the following areas:

- Implementation of Conditional Interactivity processes - This product will implement the process developed in 2019, with the publication of an Interactivity User Guide, combined with an implementation plan for all network companies to be using this process by the end of 2020.

- T - D interactivity– This product will continue development of the T D interactivity process. 2019 WS2 P3 started to look at T-D interactivity where there are transmission-led and/or distribution-led constraints, and further development of this process will be undertaken.

- DNO – DNO interactivity. Following on from the T-D interactivity process, this will look at interactivity between DNOs, where part of one DNO's network is directly connected into another DNO's network.

- DNO – iDNO interactivity. Following on from the T-D interactivity process, this will look at interactivity between DNOs and iDNOs.

The diagram below provides an overview of planned activity and deliverables.
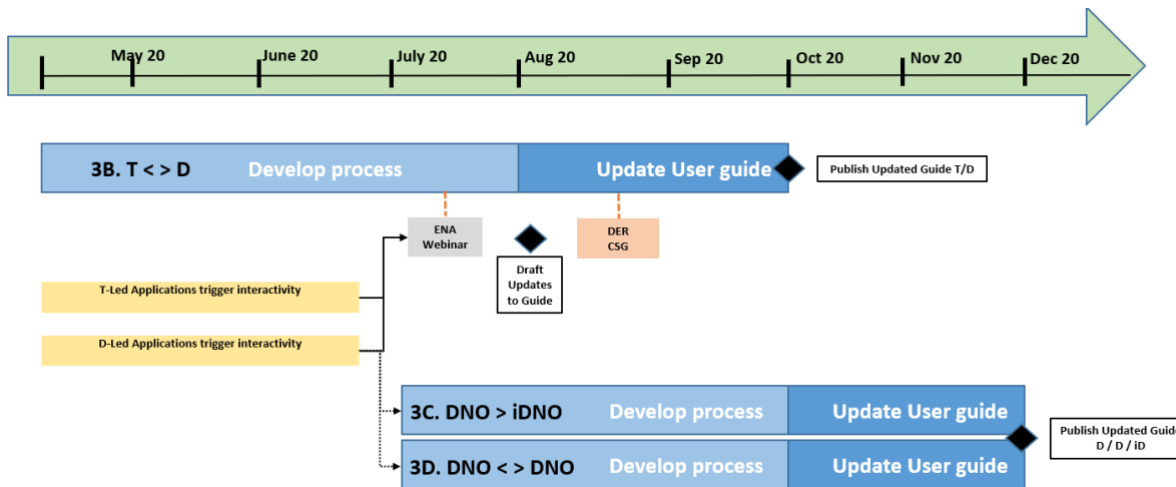
Background

This work builds on previous work from Workstream 2 in 2018 and 2019, specifically the interactivity and queue management consultation in mid-2019. In consultation with industry, the 2019 product set out a common Application Interactivity approach to connections across T and D. The work in 2020 will see the implementation of this new process and will build on this to explore interactivity between customer connections on different networks.

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: Dec 2020
- Cost: <£0.5M per DNO/TO/iDNO

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
A	Implementation of the Conditional Interactivity Process	Publication of the Process Guide	3 months	Jan 20 draft, Mar 20 final	Process Guide and network company implementation of conditional interactivity. (Mar 20)

Implementation intended to be by the end of 2020, subject to development | Webinar (advertised through DER SG, AG) | Steering Group |
		Webinar to consult stakeholders on draft process guide	1 month	Feb 20			
		Confirmation of implementation date by each network company	1 month	Mar 20			
		Ensure implementation of roll out across network companies	9-12 months	Mar-Dec 2020			

					of processes and systems.		
B	T-D interactivity processes	Agree T-D interactivity process, for both T-led and D-led constraints	6months	Mar 20-Sep 20	Update Process Guide to include T D interactivity process (Sep 20)	Webinar (advertised through DER SG, AG)	Steering Group
C	Interactivity between DNOs and IDNOs	Taking the output from 3B and applying to DNOs and IDNOs	3 months	Sep 20 – Dec 20	Update Process Guide to include D-iDNO interactivity process (Dec 20)	Webinar (advertised through DER SG, AG)	Steering Group
D	Interactivity between DNO and DNO	Taking the output from 3B and applying to DNOs	3 months	Sept 20 – Dec 20	Update Process Guide to include D-D interactivity process (Dec 20)	Webinar (advertised through DER SG, AG)	Steering Group

7.5 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.

8 Workstream 3 – DSO Transition

8.1 Introduction

Now that we have successfully concluded on the Future World for Distribution System Operation (DSO), we are developing a plan for implementation across the networks, as well as actively managing a risk register for any potential unintended consequences or conflicts of interest.

8.2 Workstream Objectives

In line with the priorities set out in the Ofgem and BEIS Open Letter, 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.

8.3 Workstream Scope

There are 2 key products within WS3:
- CoI & UI Risk Register Maintenance & Update
- DSO Implementation Plan

and in addition to this, we will identify key dependencies in and out of trials. In Q1 2021, WS3 will review developments to data & consider whether or not further modelling at this stage would be value adding. In Jul 2020, we will identify further development work based on Data Working group findings (e.g. electricity asset registration)
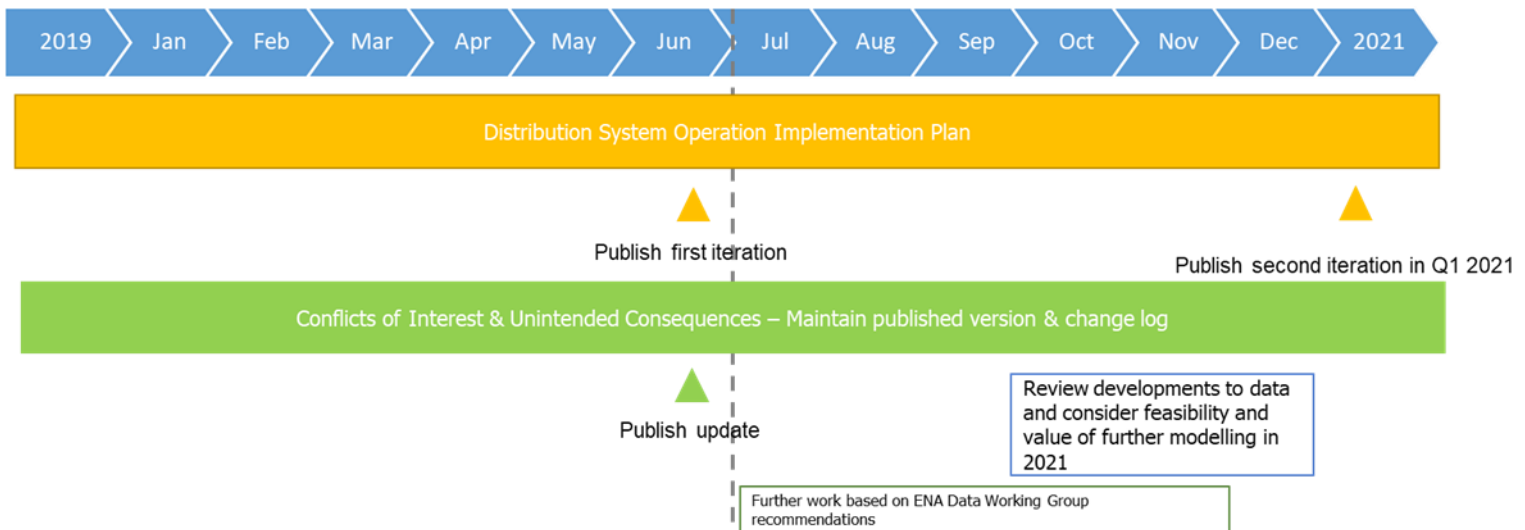
The scope for each of these activities and deliverables are covered in the section below.

8.4 Workstream Products

P1	Distribution System Operation (DSO) Implementation Plan

Description

The Description of the DSO Implementation Plan can be found in Appendix A.

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 June 2020.

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 Open Networks 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, to identify appropriate mitigation measures, monitor progress made on these measures and provide industry visibility of this. Stakeholder input is key for helping us this product and the register is open for comments and input from all on our website. https://www.energynetworks.org/electricity/futures/open-networks-project/workstream-products-2020/ws3-dso-transition/products.html

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 for 2020 will be published in Jun 20.

Delivery Approach
This product will be progressed and delivered by WS3 members and we are intending to allocate the prospective new ENA team member onto this product which will ensure that it is regularly reviewed and updated. 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.
There is likely to be input from trials into this product.

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.

Background
Based on stakeholder feedback, we made a decision in 2019 to introduce this as an ongoing activity/product (2019 WS3 P7) 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.

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.

8.5　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.

- We are intending to allocate the prospective new ENA team member onto the maintenance of the risk register.

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.

9   Workstream 4 – Whole Energy Systems

9.1   Workstream Overview

ENA Open Networks Work Stream 4 ("WS4") was created in response to stakeholder feedback in early 2019. The feedback supported the development of the Open Networks Project thinking across Transmission and Distribution networks in the electricity sector and suggested its expansion across the whole energy system. Upon creation, WS4 became the only working group where all GB energy network companies actively discussed interactions between gas and electricity networks.

The experience of the first year of WS4 has highlighted that whole system thinking across gas and electricity network companies and their stakeholders was less developed than expected. The workstream made significant progress in building the foundations for whole system and for tackling whole system challenges and will continue to take forward this work in 2020.

We will continue to consider visibility of our work through 2020 as well as forming a group to take input and discuss other whole systems initiatives across industry.

9.2   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.
3. Use a focus on near term, tangible issues to:
   a. Deliver tangible benefits to consumers
   b. 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

9.3 Workstream Scope

9.4 Workstream Products & Timeline

P1	Whole System CBA

Background

It is widely recognised that in order to enable effective Whole System decision making a Whole System CBA is one of the fundamental requirements. This is necessary to consider whether a solution is the optimal outcome on a Whole System basis rather than what is generally considered to date which is using a sector specific CBA with fairly narrow parameters.

Ofgem and companies are already undergoing work to review the existing Ofgem RIIO-1 CBA models, as well as work the ESO is doing on their NOA CBA, however these are not formal pieces of work, and so far, as we are aware, do not have in scope a Whole System view.

WS4 believe there is a need for both sector specific and Whole System CBAs. We believe that the sector specific ones should be considered within the formal RIIO-2 sector specific working groups and therefore this is out of scope. However, at present, there is no group set up to take forward work on a Whole System CBA, and this is the gap that this product is looking to fill. We will look to start from the existing RIIO2 CBAs that were used by gas and electricity Transmission companies for their December 19 submissions and we will draw on the Baringa Impact Assessment for Future Worlds.

It is important that key stakeholders such as Ofgem and other interested parties are involved in this product and the decision points as it is expected that Ofgem will ultimately need to take the product forward to completion for it to be recognised as an independently approved and owned decision making tool.

Description

This product has been scoped for three phases, with a go no go decision point at the end of each phase:

- **Phase 1:** Develop recommendations for broad principles, key elements and scope to be applied to a whole system CBA, and the circumstances in which a whole system versus sector specific model should be used.

- **Phase 2:** Development of the whole system CBA methodology and model through a trial use case. More detailed specification and parameters to be defined building on the broad principles, scope and application set out in Phase 1. Also ensuring that the detail is complementary to sector specific CBA model(s). In parallel, comprehensive stakeholder engagement on the contents of the Phase 1 report will be undertaken.
- **Phase 3 (optional):** Build and trial using case studies of a CBA model. .Further work to develop the CBA methodology and model

Phase 1 was completed in April 2020. Phase 2 is expected to complete in October 2020.

Phase 2 and 3 may require external consultant support and would be value add rather than a detailed requirement as CBA models are Ofgem owned and developed tools.

Phase 2 activities are also now reflected below.

It should be noted that the timeline could be shortened if external consultancy support is utilised for phase 2 and 3 although detailed input will still be required from group members.

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 implementation cost

Cost for early phases will be limited to member companies time and travel expenses which each company will bear as part of their commitment to Open Networks (unless early phases are delivered by third party consultancy).

Cost for development of later phases are unknown and may be delivered through ENA framework contracts if appropriate.

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
1A	Phase 1 – recommendations for broad principles	Call to all group members for input	1 month	Jan 20	Recommendations report outlining principles for Whole System CBA and proposed next steps for further phases (Apr 20)	Advisory Group Relevant Ofgem Working Groups	Steering Group Gas Futures Group
		Exploration of principles and parameters being considered for RIIO-2 sector specific CBAs	1 month	Jan 20			
		Development of use cases where a sector specific/whole system CBA is most appropriate	1 month	Feb 20			

		Input from SO/Tx/Dx key parameters to be considered for each and analysis of input received from wider group		Feb 20			
		Recommendations ready for analysis and proposal on required activities for next phase.	1 month	Apr 20			
		Go/No go decision from Ofgem, Steering Group and GFG.	1 month	Apr 20			
2B	Phase 2 Methodology and model Developing a methodology and model for a whole system CBA, via a trial use case	Explore local authorities to partner with	1 month	May 20	Creation of a draft whole system CBA methodology and model, developed via a trial use case. Conclusions and recommendations report, including next steps. (Oct 20)	Advisory Group Local Authorities	Steering Group Gas Futures Group
		Research best practice	1 month	May 20			
		Develop methodology and model, building on best practice	2 months	May – Jun 20			
		Deploy methodology and model with a local authority in a trial case study	3 months	Jun – Aug 20			
		Conclusions and recommendations report	1 month	Sep 20			
		Go / no go decision on Phase 3	1 month	Oct 20			
2C	Phase 2 Stakeholder Engagement	Create a detailed stakeholder engagement plan	1 month	May 20	Conclusions and recommendations report detailing engagement conducted, and stakeholder feedback. (Oct 20)	Advisory Group Relevant Ofgem Working Groups Various other stakeholders	Steering Group Gas Futures Group
		Execute engagement plan, with regular updates to WS4	1 month	Jun – Sep 20			
		Execute engagement plan, with regular updates to WS4 Go/no go decision	1 month	Oct 20			

Undertake further phases if a Go decision is made.

P2	Real time operations and forecasting

Description

As set out in the Workstream 4 End of Year Report for 2019, this product will be further developed outside Open Networks through innovation projects funded by the Network Innovation Allowance funding mechanism.

We will monitor the progress and outputs from these trials in Workstream 4 but there will be no specific products or deliverables for Workstream 4 in 2020 in this area of work.

P3	Whole System FES - Gas input to Whole System FES

Description

Phase 1 of this product has defined the scope for streamlining of the Whole System FES process for GDNs. The product is aiming to bring further alignment to the FES process by expanding processes developed in WS1B P2 in 2019 to gas and comparing that with existing GDN processes to look for streamlining opportunities. As part of this, the product team will review ongoing work through other forums in the industry and will consider opportunities to streamline gas distribution input to GB FES.

The aim of this product is to further improve the quality and consistency of network company Future Energy Scenarios (FES) and related publications by involving gas network companies in the processes to develop scenarios.

Background
The work is building on 2019 WS1B Product 2 which has aligned the methodology for representing scenarios across electricity network companies and enabled Electricity DNOs to input more directly to the production of the GB wide Future Energy Scenarios (FES). The 2019 product has introduced common building blocks for use by electricity network companies in the GB FES and in the FES produced by other network companies. The building blocks enable better comparisons between scenarios produced by different network companies and more effective information exchanges. The work has also enhanced the process whereby electricity DNO's contribute to the production of the GB FES.

Outcomes & Benefits
If the gas network companies are able to better input to future scenarios, the benefits will include:
- Better quality information for FES (including the GB FES) around gas use including regional supply and demand.
- Improved gas network company scenarios for investment planning.
- Comparable scenarios across network companies through the alignment of methodologies and processes for data exchange.

Indicative Impact for companies
- Impact: Revised processes for Gas and Electricity network company FES production and for inputs to the annual GB FES.
- Timing: Revised processes and methodologies would be assessed through 2020 and introduced as quickly as practicable. Ideally, electricity network companies would benefit through improved information flows during 2020. Network company (electricity and gas) scenarios being produced from 2021 would take on the agreed changes.
- Cost: Key changes are likely to be new ways of working in network companies and new exchanges of information. Additional resources may be required to support these changes but are not envisaged to be large (<1FTE per company per annum).

Public Consultation: No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
3A	**Undertake scoping exercise** Review ongoing work through other forums to support gas input and scope proposal to progress any further work under ON to streamline approaches to D	Review ongoing work and develop proposal, highlighting potential opportunities for include gas input to further streamline Whole System FES. Proposal should include activities and next steps to progress any further work.	4 months	Jan 20 – Apr 20	Proposal outlining scope for further work on gas input to Whole System FES.	Advisory Group Relevant Ofgem Working Groups	Steering Group Gas Futures Group Ofgem

	FES (Gas and Electricity) and streamline D (Gas and Electricity) input to GB FES.	Present proposal and seek approval for further work.					
3B	**Geospatial data sharing**	Agree process for sharing of data on GDN LDZ boundaries (geospatial ESRI Shapefiles)	4 months	May 20 – Aug 20	Agreement for data sharing process (Aug 20)	Advisory Group Relevant Ofgem Working Groups	Steering Group Gas Futures Group Ofgem
3C	**Scenario/forecast production timeline**	A document is to be produced that outlines the various scenarios being published by each of the network companies and the Electricity System Operator (ESO) during 2020. This already exists in for electricity networks as a result of the work done in WS1B P2 (published here). This gives stakeholders improved visibility of the various scenario publications being produced during the year.	4 months	May 20 – Aug 20	Scenario/forecast production timeline online document/webpage (Aug 20)	Advisory Group Relevant Ofgem Working Groups	Steering Group Gas Futures Group Ofgem
3D	**Agree common templates**	Agree common templates for sharing data relating to some specific sources of demand. (District heating, peaking plant, Gas fuelled transport)	4 months	May 20 – Aug 20	Data sharing templates (Aug 20)	Advisory Group Relevant Ofgem Working Groups	Steering Group Gas Futures Group Ofgem
3E	**Implementation**	DNOs and GDNs to implement processes and templates with support from the product team as needed.		Aug 20 onwards	Outputs will be reflected through the DSO Implementation Plan	N/A	N/A

P4	**Investment Planning**
Description This product will further assess the Whole System Optioneering opportunity and will understand any links with the ESC's Local Areas Energy Planning (LAEP) project and LHEES (a Scottish Government initiative) and will present a proposal for a Go/No Go Decision. If approved, this product will develop detailed processes to deliver the implementation of this. We are looking to trial and pilot new improved processes that take regional data and look at how different options affect system needs based on good practice. **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. By providing a coordinated optioneering service, a more efficient service can be provided with new options identified for the 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
- Impact: Process change
- Timing: RIIO 1 and RIIO2
- Cost: Costs will depend on the scale of change proposed.

Public Consultation
No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
4A	**Further assess and develop proposal for Whole System Optioneering.** Assess and further develop opportunity identified in 2019 on Whole System Optioneering. Understand interaction with LAEP work led by ESC. Develop an outline proposal to progress (highlighting scope, potential cost, benefits, scale of change etc.) and seek approval.	Undertake further assessment of Whole System Optioneering opportunity identified in 2019. Undertake further engagement with LAEP project to understand any overlaps, dependencies or linkages. Identify at least 3 areas to trial a joint electricity and gas optioneering service with a local authority Run trials to identify whole system solutions that meet LA ambitions and objectives Collate feedback from all completed trials and workshop to identify a GB process/service/procedure and understand benefits and added value Document findings and proposal for approval from the Steering Group and GFG, highlighting scale of impact.	11 months	Jan 20 – Nov 20	Outline proposal to progress Whole System Optioneering, indicating scope, potential cost, scale of change and clarifying linkages with LAEP (Nov 20)	Advisory Group	Steering Group Gas Futures Group
4B	**Detailed process development**	Develop detailed processes, template etc. to take further develop and implement the Whole	2 months	Nov 20 – Dec 20	Report outlining detailed processes and	Advisory Group	Steering Group

					supporting templates and committed timescales for implementation. (Dec 20)		Gas Futures Group
Undertake detailed process development for agreed approach.	System Optioneering approach.						
	Seek commitment from all network companies for implementation.	2 months	Nov 20 – Dec 20				

P5	Coordinated Gathering Regional Data

Description

The Workstream 4 Final Report identified the opportunity to take a consistent and co-ordinated approach to gathering regional data from other parties, particularly Local Authorities but also potentially other parties. Currently this data is gathered independently by all of the networks (and probably in different ways requesting different data) so consistency would deliver efficiencies for the parties being requested data and consistency for industry. On behalf of the networks, we will look to define a single process to acquire, update, and share the critical data from regional bodies required for planning medium and long term incremental network capacity.

As many network companies currently have contracts with existing data providers, we are seeking to agree the scope and potential mechanism for data capture and sharing before agreeing to implement change. We need to understand the potential costs, benefits and implementation steps and potential delivery plans before a decision can be made to progress. The broad steps to follow will be:

1. Agree scope for service including generic basic data, and data provision/sharing mechanism.
2. Agree mechanism to coordinate gathering of regional data e.g. procurement of service provider or agreed common data framework.
3. Go / No Go Decision from networks to implement including resourcing and responsibilities for detailed design and implementation plan, including cost allocation.

Background

This was identified as a recommendation from the Investment Planning opportunity analysis work done in 2019 by Workstream 4.

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

- Impact: Process change
- Timing: RIIO 1 and RIIO2
- Cost: Costs will depend on the scale of change proposed.

Public Consultation

No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
5A	**Coordinated Gathering Regional Data**	1.Agree scope for service including generic basic data, and data provision/sharing mechanism. 2.Agree mechanism to coordinate gathering of regional data e.g. procurement of service	5 months	Jan 20 – May 20	Coordinated Gathering Regional Data Report (May 20)	Advisory Group	Steering Group Gas Futures Group

	provider, or agreed common data framework. Present a high level cost benefit analysis alongside potential delivery implications and timescales in order to assess and agree next steps.

Undertake further phases if a Go decision is made.

P6	Current Network Resource Data Analysis

Description
This product will consider, identify and document what data currently exists for published network resources or other resources that already exist and could be published, as well as an initial view of priority data gaps.
The output of this analysis will feed into the ENA Data Working Group that is considering more widely how network data can be sourced and presented.

Background
This was identified as a recommendation from the Investment Planning opportunity analysis work done in 2019 by Workstream 4 and Workstream 4 have the continuity of representatives to collate and present this data into the Data Working Group.

Outcomes & Benefits
Transparency of data delivers on the objectives of the Energy Data Task Force.

Indicative Impact for companies
- To be considered through ENA Data Working Group following delivery of the report.

Public Consultation
No

Ref	Product Element	Activities	Duration	Timeline	Deliverables	Stakeholder Engagement	Approval
6A	**Current Network Resource Data Analysis.**	Consider, identify and document what data currently exists for published network resources or other resources that already exist and could be published, as well as an initial view of priority data gaps.	6 months	Jan 20 – Jun 20	Network Resource Data Report (Jun 20)	Advisory Group	Steering Group Gas Futures Group

10 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 2020, the Open Networks Project is now not planning to hold any external face-to-face engagement meetings, and instead moving them to digital events where possible.

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.

10.1 Workstream Objectives

To use a combination of public affairs, press, social media and direct engagement to raise stakeholder awareness of:

- The DSO transition and its importance through Open Networks Project

- The opportunities for stakeholders to engage with the Project

- The role network operators are playing in laying the foundations for the UK's smart electricity grid.

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

- Press Releases

- Social Media

- Interviews

- Research material to support key messaging

- Event speaking opportunities

- Exhibitions

This workstream will continue to:

- Proactively support stakeholder engagement for key Open Networks Output

Community Energy Forums is a new initiative in 2020:

- Open Networks is committed to building an energy system that is all inclusive

- Following our successful community engagement this year, Open Networks is now committed to formalise this moving forward

- Starting in 2020, we are launching a "Community Energy Forum"; 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 look to partner with organisations like Regen and Business Green to follow on the work initiated in 2019 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.

10.2   Workstream Products, Dependencies & Schedule

Ref	Product	Timeline/ frequency	Target audience
1	ENA organised breakfast briefing events, to be held at ENA 's offices	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 at external venues and in partnership with appropriate external organisations	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	Content for PR/PA work (e.g. think-tank research, polling) to help create media stories on Open Networks related issues, including polling	2 per year	Energy industry, think-tanks, policymakers, Government, MPs & researchers, trade & national media
5	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
7	'Drop-in' stand/exhibition at industry events (e.g. LCNI, Power Responsive, DNO events)	Up to 4 a year	Energy industry, think-tanks, policymakers
8	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
9	Communications and engagement strategy development	Annual	ENA, ENA members, ON Steering Group
10	Community Energy Events: Location costs, article, promotion	3 per year	Community Energy participants, policy makers

10.3   Workstream Assumptions

ENA members

ENA will work with individual member companies to use their own communications activity to promote Open Networks as set out.

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 Public Affairs Committee. It therefore forms a key part of ENA's wider communications activity.

Oversight

Workstream 5 will continue to be overseen by a sub-committee of ENA's Public Affairs Committee. The Chair of Workstream 5 and ENA's Head of Press & Public Affairs will continue to report on the progress of Workstream 5 to the Open Networks steering group on a monthly basis.

11 Project Deliverables

11.1 Monitoring Implementation

The ONP will continue to monitor the rollout and implementation of completed products across network companies to have visibility of the progress being made and understand any barriers to deployment of consistent approaches across networks. We will be reporting implementation progress through the DSO Implementation Plan to provide a more holistic view of all ON as well as other DNO initiatives that are progressing the transition to DSO.

We will continue to monitor progress on bi-annual basis with input from the network company representatives on the relevant workstreams. The first iteration will be published in June with the next publication in Q1 2021 to reflect updates from RIIO ED2 developments in 2020 amongst other developments.

11.2 Flexibility in GB Reporting

Through the Flexibility in GB webpage, the ENA will continue to provide visibility of upcoming flexibility procurement activities across all DNOs as well as reporting on flexibility contracted and forecasted by DNOs as well as national grid ESO to indicate the scale and size of local flexibility markets across GB.

11.3 DNO Future Energy Scenario Publication Reporting

Through the Distribution System FES Publications webpage, we will continue to provide visibility of various Future Energy Scenarios being published by each of the network companies and the ESO.

Appendix A – DSO Implementation Plan Description

Introduction

Background to Distribution System Operation

The Open Networks Project has completed work to define what Distribution System Operation (DSO) is and the functions and activities associated with DSO. This work can be found here:

http://www.energynetworks.org/electricity/futures/open-networks-project/open-networks-project-workstream-products.html/ws3-dso-transistion.html

We then undertook an analysis of what the options might be for Future Worlds which focused on who took responsibility for what activities to deliver DSO, we subjected these options to an Impact Assessment and public consultation as below:

http://www.energynetworks.org/electricity/futures/open-networks-project/workstream-products/ws3-dso-transition/future-worlds/future-worlds-impact-assessment.html

The response from stakeholders was conclusive that the preferred model for DSO is one with increased co-ordination between the DNOs, ESO and TOs underpinned by price driven flexibility. The conclusions of the consultation can be found above which sets the reference point for the DSO Implementation Plan

Background to Requirement

The key next step for Open Networks in delivering Distribution System Operation (DSO) is turning our Future Worlds work into an action and implementation plan to deliver against. Seeing when networks will deliver tangible change is a high priority for Ofgem and BEIS and a focus of their open letter to ENA on Open Networks.[9]

The DSO Implementation Plan will be a key input to RIIO2 business planning for DSO for DNOs, as it will identify the necessary activities. It will act as input for business planning for DNOs for ED2. It is important that we take a whole system view on DSO implementation, therefore it is essential that we also include activities, outputs and business change for the ESO and the Transmission Owners as part of the DSO Implementation Plan. ET2 Business Plans will have already been submitted to Ofgem by the ESO and TOs therefore it is essential that the DSO Implementation Plan reflects these submissions and that our consultant works with the ESO and TOs to ensure that any more detailed definition is consistent with their future development plans.

We are proposing to present the timing of implementation as a range across all of the network operators, explaining that these are indicative timescales subject to RIIO2 business planning. We are proposing to publish the DSO Implementation Plan on the ENA website to maintain transparency.

It is not appropriate to present timings on a company by company basis within the Open Networks DSO Implementation Plan when the definitive view will be in the individual company RIIO2 Business Plans and will be subject to change during the RIIO2 business planning process. RIIO2 business planning will also impact what is scheduled before 2023. The DSO Implementation Plan will present a snapshot of the best view at the time with a range of implementation windows, as explained above. We are asking for a plan that is easy to maintain so that we have a choice on how we might revisit this at a later time and/or use it to monitor our delivery against proposed change. The supplemental presentation pack shows how this might be represented.

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[9] https://www.ofgem.gov.uk/publications-and-updates/open-letter-ena-open-networks-project-ofgem-and-beis

There will be indicative windows for implementation defined and this will include short-term activities before 2023 as well as during RIIO2, so we will ensure this has Board level commitment to present this level of information. The DSO Implementation Plan will be approved by the Electricity Networks and Futures Group (ENFG) and Regulation Committee within ENA before publication to cover the practicalities of business change and RIIO2 business planning.

Requirements

The requirement is to deliver an approved DSO Implementation Plan by end June 2020.

Objectives

This aim of the DSO Implementation Plan is to provide visibility of actions and implementation of change for all electricity network and system operators that are required to progress the least regrets pathway to Distribution System Operation (DSO) and any barriers (regulatory, policy or others) that may prevent the transition. In addition to providing a consolidated view, this product will highlight any gaps or areas that may require further development to help understand and define actions to progress the transition. The intention is for this to show what change needs to be implemented when as a range across network operators and we intend to monitor and report delivery against this plan.

The DSO Implementation Plan will:

- Give us clarity in our communications to help stakeholders understand the route to DSO implementation and ensure we as network companies are all talking about the same thing

- Enable us to share best practice

- Drive alignment in practices - deliver economies of scale and help customers and supply chain through establishing common DSO standards

- Capture the collaborative action being taken now to deliver DSO and meet the ENA flexibility commitments

- Complement RIIO-2 business plans - assist DNOs to prepare the costed propositions to be shared with stakeholders and complement proposals already submitted by the ESO & TOs

- Identify any gaps in the current plans for change across network operators and highlight those for planning in individual companies so we have a complete set of change activities

- Inform the priorities for concerted industry actions through Open Networks in 2020 and 2021

- The implementation plan will focus on what change needs to be done by when to deliver the main DSO functions out to 2028 - it will not necessarily describe exactly how each DNO/DSO will do it (illustrative content included as opposed to fully inclusive comprehensive coverage)

- Identify decisions and input for BEIS/Ofgem to feed into business planning guidance and where we need direction to remove barriers that are not within the control of network companies to resolve

- Enable us to report progress of implementation

Content and Output

The DSO Implementation Plan will provide a consolidated view of actions that network companies need to undertake to deliver and support implementation of Distribution System Operation functionality across different timescales.

We expect that the

- Actions and implementation of change (including enabling actions) will be mapped against the 8 DSO functions in the appropriate timescales to reflect whether these are **short (up to 2023), medium (2023 to 2028) or long (beyond 2028) term actions**. It is likely we will have to split this down to activities within the 8 functions, but we will see as the product develops.

- Clearly map out actions that have been agreed by the Steering Group through the approval of ONP products to date and will highlight any areas where further development or agreement on implementation timescales is required. In addition, this product will highlight actions identified through other sources, map out barriers and identify gaps to inform future development work.

- Needs to reflect different levels of maturity and needs across DNOs and any differences in resulting implementation timescales.

- Key inputs include:

  - ONP developments to date including any actions identified through WS3 P7 Unintended Consequences / Conflicts of Interest Log

  - Developments from TEF projects and other related industry trials. 2019 WS3 P5 has mapped all DSO related industry trials against the relevant DSO functions and these can be used to refer to relevant projects to help identify actions or areas that may require further development.

  - Individual DSO Roadmaps to help identify any additional actions or areas that may require further development/agreement and we expect the consultant to individually speak to all DNOs, ESO, TOs and GTC to collate this information.

  - DSO related Code Modification Proposals (e.g. DCUSA, D-Code, G-Code) that instigate change and have been raised through Open Networks (we do not want a full analysis of all Modification proposals, just those that are highlighted to the consultants as being DSO related).

We expect that the work on the DSO Implementation Plan will:

- start from the 8 DSO Functions and supporting activities defined in Open Networks

- Map out actions (development activity as well as implementation activity), barriers and key external dependencies against timeline & 8 DSO Functions (to begin with and then activities if we need another level of detail)

- Review developments and outcomes to date across all Open Networks Workstreams in discussion with the project team, the Transition, EFFS and Fusion NIC projects (TEF) with an identified lead person

- Discuss and review individual electricity Network Operator (DNOs, ESO, TOs, GTC) DSO roadmaps and plans to map out developments, change, actions, capabilities, decision points and barriers that have been identified and planned to date. We expect the consultant to individually speak to all DNOs, ESO, TOs and GTC to collate this information

- Work collaboratively and iteratively with the network operators to identify gaps, good practice and opportunities for alignment to consolidate this into a plan with common activities where possible with a range of implementation dates for all companies

- Analyse completeness against the functions and activities required for the DSO Future World

Implementation Plan should consist of a Roadmap that outlines the actions, gaps and barriers and this roadmap should be supplemented by a more detailed document to capture additional details for them.

Where barriers have been identified, this product will identify the responsibility party and will outline a plan to help facilitate the removal in a timely manner.

Where Gaps have been identified, this product will outline a plan to address them.

Features for Roadmap:

- Interactive & digital

- Does not require non-standard software licence for viewing

- Offers option to view detail (e.g. view at an Activity level rather than Function level, view of network operator change) and filter

- Functionality to add new functions and activities in the future (as the Future World develops)

- Ability to add in links – this is key to demonstrating change has been made and for us to monitor implementation

- Easily maintainable by ENA

- Ability to track progress and provide updates/comments against ongoing, completed and completed activities.

- Dependencies between actions where relevant (e.g. if delay to one action impacts another action)

We want this to be interactive and intuitive.

Liaison with Companies, Ofgem/BEIS and Stakeholders

The Open Networks Project has a dedicated Workstream to the development of DSO Transition (Workstream 3), which has a number of representatives from network operators, as well as representation from BEIS and Ofgem. The DSO Implementation Plan is the key product for this Workstream this year.

You will have access to the DNOs, ESO, TOs and GTC through their representatives at Workstream 3. This is a key source of information to input to the DSO Implementation Plan from RIIO2 business plans and for the consultant to identify the full breadth of activities and change required to deliver on the Future World.

You will also have access to Ofgem and BEIS through their representatives at Workstream 3. It is important to engage with both parties as we progress through development.

We have scheduled a stakeholder review point with the Open Networks Advisory Group on 5th March.

Company Variations

It is very important that there are different drivers for different activities in the electricity network companies. There are different network system needs over time and different development priorities. This is why we are presenting ranges of implementation timings and it is very important that any output appropriately reflects variations between companies and that there is no inappropriate comparison between company positions.

Out of Scope

It is not the consultant's responsibility to make the case for change (with cost benefit analysis or impact assessment) but to identify the potential areas for change to deliver on the Future World and then for the individual companies to identify how and when they will deliver change. The specific commitments for each network company will be driven from their business plans.

We do not expect the consultants to undertake a literature review of other countries' approach to DSO Implementation. We are looking for the specifics of what GB network operators are going to do to implement our defined Future World.

We will not be explicitly identifying new actions for electricity network operators where they are not barriers or change for the development of network capability for DSO.

We only want the consultants to consider Code Changes that are highlighted by the Open Networks project of network operators as relevant to DSO. We do not want an analysis and investigation of all Code Modifications to identify which are relevant.

Review and Governance

We expect a weekly progress call with the ENA Open Networks Project Team to monitor progress and provide advice and guidance and the consultants will have access to the advice and guidance and we expect a weekly progress call with the ENA team to monitor progress

You will present progress and development material on a monthly basis to the Open Networks Workstream 3 meeting, which will provide advice, guidance and help with the development work. Workstream 3 will ultimately recommend the final plan (planned at WS3 meeting 11th June) to the Open Networks Steering Group (planned at ONP SG meeting 18th June) who will subsequently recommend the plan for approval at the ENFG & Regulation Committee (dates unconfirmed as yet).

We have scheduled a stakeholder review point with the Open Networks Advisory Group on 5th March. This should be good timing to present substantive content whilst still giving the opportunity for Stakeholders to shape our work.

Development Process

It is expected the development of the DSO Implementation Plan will follow the general process outlined below, but it is expected consultants will develop a more detailed delivery plan to achieve the best outcome. The Advisory Group review point in March is fixed, but the rest can flex to the final delivery date.

1. *Mobilise*

    a. Gather information from sources identified above.

    b. Plan meetings with Network Operators, BEIS & Ofgem to discuss development work.

2. *Analyse & Shape Output*

    a. Conduct interviews/meetings with Open Networks Project, individual DNOs, ESO, TOs and GTC.

    b. Review documentation, sources, input and meeting discussions to collate the Implementation Plan draft.

    c. Shape a structure and framework for a tool to best represent the output

3. *Develop the content and Iterate with Workstream, Electricity Network Operators and stakeholders*

   a. We expect that there will be gaps and inconsistencies identified and that the consultants will iterate with Open Networks Project, individual DNOs, ESO, TOs and GTC to identify areas for them to include in their own plans and to help to drive alignment where it is appropriate.

   b. Consolidate the individual activities into consolidated common change activities.

4. *Submit initial draft DSO Implementation Plan*

   a. Take an early draft through review and approvals process.

5. *Submit final DSO Implementation Plan*

   a. Take final draft through review and approval.

6. *Stakeholder Engagement*

   a. We expect the consultants to continue this assignment after publication, supporting 2 hour-long webinars and 2 stakeholder engagement events (1 London, 1 Scotland) to present their work, venue to be organised by ENA.

Appendix B – 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 are taken into consideration in the development work under Open Networks project. WS3 will have a role to build on the trials mapping work in 2019 to ensure that the learnings and linkages are appropriately shared with relevant workstreams and products.

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.

Recognising the level of interaction that will be required with Charging, trials and RIIO 2, a dedicated SME will be allocated to ensure appropriate interfacing with ON products and workstreams.

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 SCR of network access and forward-looking charge arrangements impacts the charging function within distribution system operation and the conclusions from the group will feed into this as well as work on connection arrangements. Open Networks will continue to stay up to date with the latest developments and will feed into relevant workstreams as required).
		In addition to the SCR, we will take into consideration any appropriate input from TCR developments.
		Paul McGimpsey will continue in a similar role to that which he has played to date in taking a leading role on charging and the key interface to Open Networks.
Data	ENA Data Working Group	The ENA Data Working group 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 strategies and outputs from this group will be a key dependency across all workstreams in Open Networks and may inform further development work under Open Networks. All ON workstreams have a check point in July 2020 to review the outcomes from this group and identify any further products or development work that might be required, but this can be more dynamic and capacity within the workstreams is being retained to pick up output/actions.

		The Data Working Group reports to the ON Steering Group (for electricity – Gas Futures Group for gas under dual governance like Workstream 4) and the Steering Group will ensure alignment
		More information on the ENA Data Working Group can be found on a dedicated webpage for the group to share progress updates and for flagging key stakeholder events. More recently, the group launched a video that demonstrates the use of a new platform for the Digital Systems Map (as recommended by the Energy Data Task Force) for displaying network and asset data and will be planning further events to engage with the industry. ENA will be running a series of stakeholder events across the year and will also be notifying stakeholders of opportunities to engage in this work via the Open Networks mailing list.
		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 DSO NIC 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 are 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.
		In 2019, ONP has provided input to help scope trails work and we have taken the output from scenario walk-throughs into our Unintended Consequences/Conflicts of Interest Risk Register.
		Kyle Murchie is allocated as a dedicated contact for trials activity to reflect the importance of this activity.
		Randolph Brazier is on the Board of TEF.
		WS1A P6 is taking the output from Transition/LEO scenario work.
DSO Related Innovation Trials	New NIC and other NIA projects LEO BEIS Flex Competition	Existing industry trials that relate to DSO have been 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. We will need to allocate a trial lead in WS3.
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. ONP 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 such as their work of Product Roadmaps 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. WS1B 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. We continue to participate in RIIO 2 working groups and liaise with the ENA Regulation Committee to ensure that the ON findings feed into the RIIO2 process.
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 for 2020 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.
Cyber Security	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.
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

Appendix C – Project Governance and Structure

ENA Board

The ENA Board is engaged with progress and any issues from the Open Networks Project. Paul Fidler 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. Paul Fidler 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 ONP 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 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 Non-SCR Industry Led Charging Work and 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 Operations Director, Project Director 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 Futures 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 group on an ongoing basis. The Gas Futures Group is also a joint-owner of the Data Working Group.

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 here.

Input and feedback at Project Advisory Group meetings are recorded and all specific points are addressed. 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 facing deliverables.

ENA Regulation Committee

The ON project will closely liaise with the ENA Electricity Regulation Committee (ERG) to take their input on regulatory issues. In 2019, we have expanded the membership of the Steering Group to include a representative from ERG to ensure that regulatory perspective is provided at an appropriate level.

Open Networks Project Team

The ON Project Director, Jason Brogden, reports to the ON Steering Group and is responsible for the day-to-day delivery of the project as set out in this PID. The Project Director will manage the resources on the project within the budget allocated to deliver the defined products to time, cost and quality.

The Project Director and the project team will have the autonomy to communicate directly with stakeholders, including Ofgem & BEIS, whilst making it clear whether any views expressed are a personal opinion or the view of the group (be it unanimous or majority).

Jason is supported by the ON Project Manager, Farina Farrier.

There will be an ENA technical architect with responsibility for consistency and providing technical input across multiple products across workstreams, largely focused on Workstreams 1B and 2. There are links between many products across workstreams and therefore these links and consistency is important (e.g. information provision).

We are also proposing to add a further part-time resource in the ENA team to take ownership and provide input to Workstream 1A, given its importance and scope of work for this year.

There is also a dedicated communications resource to deliver the desired communications and stakeholder management outcomes in Workstream 5.

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 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 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.

There are a number of products that flow over from 2019 development and the key themes covered in the Workstreams are also a continuation of previous work in many cases. We will seek to allocate the same resources as previously working on these areas in previous years.

Product development will continue to remain open for external participation in workstreams such as WS1A.

We expect that the Project Director will direct the resources deployed from members to work on the products in the workstreams. 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 in 2020, we will require increased external consultancy support and this will be identified against specific deliverables in advance where 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 2020 is expected to be similar to 2019, but we are adding a new focus on Community Energy in 2020 in response to stakeholder feedback on the project and increase the opportunities for this stakeholder group.

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 2020, 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 Low Carbon Network Innovation (LCNI) conference

- New Community Engagement 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.
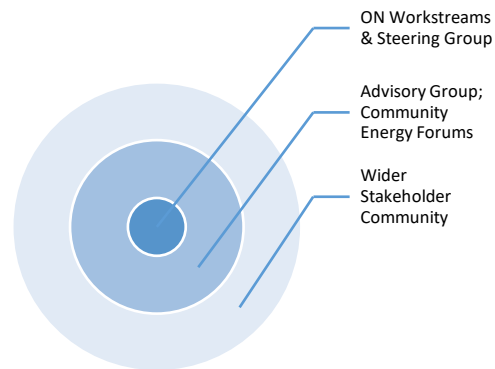
ON Workstreams
& Steering Group

Advisory Group;
Community
Energy Forums

Wider
Stakeholder
Community

Figure 4 – Categorisation of Stakeholders to support Engagement Activities

Appendix D – 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 there is likely to be additional scope for the project based on findings of the ENA Data Working Group and have an explicit activity for July 2020 to review and progress this.

A lesson learnt from 2019 is to try to avoid losing continuity in workstreams, products and teams and therefore, we have maintained the existing workstreams and product teams where possible.

The products and the deliverables associated with them will be captured in a product tracker along with their review cycles and meetings that we expect input from (e.g. Advisory Group or DER Connections Steering Group). We will then update and monitor achievement against that product tracker to report progress.

Product Internal and External Dependencies

Continued management of dependencies between products and workstreams will be required in 2020 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. As and when the whole project closes, we will produce a project closure report.

Change Control

Once products have been approved, they will be baselined and will also be subject to change control. Should a change to a published product be requested, the impact of the change will be assessed, and a decision whether to proceed with the change will be made. The Project Management function will decide which body is the most appropriate to assess the impact of the change – and the body approving the change will depend on the result of this impact assessment. Where there is negligible impact, the body originally approving the item will usually approve the change; where there a more substantive impact the ON Steering Group will usually approve the change; and if there is any material cost or time impact the ENFG will approve the change.

Products Expected for Advisory Group Review

Taking a similar approach to 2019, 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.