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02 October 2019

Dear Daniel and Frances,

Re: Upgrading Our Energy System

Thank you for your open letter of 16th July and BEIS and Ofgem's continued support and involvement with the Open Networks Project. We agree that decentralisation, decarbonisation, digitalisation and a transition to Net Zero is transforming our energy system and that ENA and the network operators will continue to play a leading role in delivery.

Thank you for the clarity on your priorities and actions and in response, we have set out how we have adapted our current programme of work in 2019 and set out our plan for 2020 to reflect those priorities and actions. In the annex, we set out more detail on our work to:

- Facilitate flexibility markets, provide decision-making transparency and standardise processes and commercial arrangements across network and system operators for flexibility services
- Plan for the implementation of electricity Distribution System Operation to deliver the least regrets pathway set out in the clear direction from our electricity Future Worlds Impact Assessment consultation[1]
- Increase transparency of data as part of a wider ENA gas and electricity initiative to progress digitalisation and Energy Data Task Force recommendations
- Continue to deliver interoperability and whole systems development for transmission & distribution, as well as continuing the work between electricity and gas networks on whole energy system

As you have requested, we will focus on tangible results and amongst the work set out in the annex to this letter, our 2020 workplan will include:

- Monitoring implementation of Open Networks outcomes and Flexibility Commitments on a six monthly basis
- Defined outcomes with planned timescales in the 2020 workplan, which this open letter response will feed into. We have provided indicative timings in this letter where we can.

[1] http://www.energynetworks.org/assets/files/Impact%20Assessment%20Consultation%20-%20ONP%20Response.pdf

- Raising appropriate change within electricity network companies and/or electricity Codes
- Identifying any barriers to development where we may need Ofgem or BEIS policy intervention

We appreciate your input to date and the recognition of the value that the Open Networks Project has provided for delivering change as part of the energy transition. The publication by Ofgem of the "Position paper on Distribution System Operation" and the Future Insights paper on "Flexibility Platforms in electricity markets" are both important publications and input to our development work and we will be separately responding to the position paper.

We are in the early stages of joint working between gas and electricity networks and the project is starting to develop whole energy system features whilst retaining a focus on the development of the electricity networks and associated markets. This response is therefore primarily on behalf of the electricity networks.

Stakeholder Engagement and Opportunity for Feedback

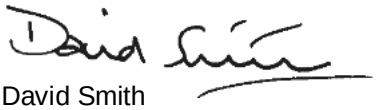
Working with stakeholders from across the sector along with BEIS and Ofgem has been vital to help us develop our work on Open Networks, to make the significant progress to date, and support the delivery of policy set out in the Ofgem and BEIS Smart Systems and Flexibility Plan.

While we are not formally consulting on this letter response, we would welcome any input from stakeholders on how we have responded to the challenges set by Ofgem and BEIS in their letter and particularly what we will set as our priorities and development work for 2020 and beyond. We are beginning to plan our work for 2020 and draft our annual Project Initiation Document, therefore there is an opportunity to provide stakeholder input to our planning whilst it is still in development. We would encourage any stakeholders to provide feedback to us by CoP 22nd October at the following email address: opennetworks@energynetworks.org

The ongoing participation from Ofgem and BEIS in our Steering Group, Advisory Group and workstream developments is essential for us to ensure that we continue to deliver the right results and we look forward to your input to help shape our workplan and developments for 2020 and beyond.

I would welcome the opportunity to sit down with you both to discuss how we can continue to work together to lead the way towards the transition to the smarter and more flexible energy system that the country needs.

Yours sincerely,



David Smith
Chief Executive

Annex – Our Response to Your Letter

Summary and Introduction

The cover letter above gives a high-level view of the work in Open Networks and this Annex provides more of the content behind this work. We have summarised our work in simple to digest tables at the front of this annex with more detail of what we have done in the supporting text below.

The numbered sections below set out how we are delivering and going to deliver on the activities and expectations set out within the Ofgem and BEIS Open letter. We have broken down this section to demonstrate our delivery against each section set out in the annex to the Ofgem and BEIS letter for ease of reference, describing:

- How we have adjusted/re-prioritised work that is already underway in 2019 to align with your priorities
- What we expect to include in the 2020 workplan to ensure that we continue to focus on these priority areas – giving the opportunity for stakeholders to provide input to our priorities now and consulting on our workplan in Q1 2020, as requested by our Advisory Group
- What is already in place to deliver these priorities and where other initiatives are under way outside Open Networks. There are some initiatives that will sit outside the ENA as there are different actions underway specific to different electricity network operators that supplement Open Networks activities (e.g. company specific activities to mitigate conflicts of interest through audit or ring-fencing activities) and some activities that are being progressed within the ENA but not specific to the Open Networks Project (e.g. some of the Energy Data Task Force actions).

This demonstrates how we will deliver on the further changes required for our joint vision of an electricity system fit for the future. We have developed this with each of our development workstreams (with participation from Ofgem and BEIS representatives) following the below process:

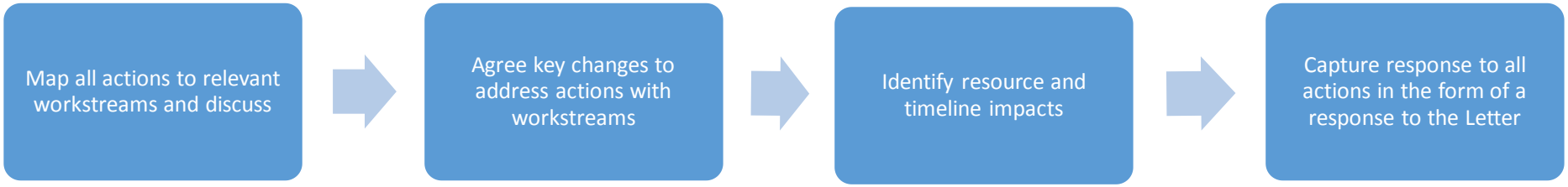


Figure 1 – Process of analysing Ofgem/BEIS open letter

The output from Open Networks is a key input to shaping RIIO2 submissions from network operators and this will continue through 2020 and beyond. We need to understand that many of the challenges faced by electricity network operators are geographic and therefore we are likely to see different needs at different times for different operators. What we are driving towards under Open Networks is a consistent, convergent set of processes and interfaces for customers where possible.

Part of least regrets development is to ensure that we continue to learn by doing and take into account experience from flexibility procurements and trials to evolve the most efficient operational models. This is essential given that electricity flexibility markets are relatively new and we are still understanding good practice and how to deliver working markets.

Open Networks will continue to monitor and take into account the Ofgem Significant Code Review developments on Access and Forward-Looking Charges and we plan to take forward the non-SCR Industry Led work on trading of non-firm DG curtailment obligations and exchange of access rights between users as part of our flexibility developments in 2020.

Holding Ourselves to Account for Implementation

As highlighted in the cover letter above, we have published how the network operators have implemented the outcomes to date from Open Networks[2].

We will add new products/outcomes and continue to monitor the implementation of Open Network outcomes as we deliver them from the project (e.g. on a DNO by DNO basis where is progress against implementation of the System Wide Resource Register by January 2020 and July 2020). We will do this on a 6-monthly basis. Now that we have identified the next steps to deliver on the flexibility commitments made to date[3] [4], we will also publish by the end of the year where and when the clear action points in those next steps will be implemented by each of the network companies. In 2020, we will also be monitoring the mitigation strategies from the Conflicts of Interest Product (WS3 P7), to ensure that these are being implemented by the Electricity Networks.

This keeps the focus on implementation and provides visibility of progress.

[2] http://www.energynetworks.org/assets/files/ON-PRJ-Monitoring%20Implementation%20(Q2%202019)%20-%20v3%20(for%20publishing).pdf
[3] http://www.energynetworks.org/assets/files/ENA%20Flex%20Committment.pdf
[4] http://www.energynetworks.org/assets/files/ENA%20Flexibility%20Commitment%20Our%20Six%20Steps%20for%20Delivering%20Flexibility%20Services.pdf

Stakeholder Engagement

The involvement of stakeholders in our development work through workshops, seminars, webinars and more formal consultations is essential in ensuring that everyone is working towards the same goals. The Advisory Group is key to providing stakeholder input to our product development and this will continue through 2020. External stakeholders have been involved and will continue to be involved in the development of our work in the Whole Energy Systems workstream (WS4). We have continued to increase the level of our engagement and have recently invited stakeholders to participate as part of the project development teams in our flexibility workstream[5].

Adjusting & Prioritising 2019 Work; What is already in place; What we expect to develop in 2020

A summary of our analysis of where we needed to make change to our work against the expectations and priorities set out in the Open Letter is described in the tables below. We analysed each point across all of the workstreams and identified where we need to make enhancements to our work and/or re-prioritise, as well as demonstrating where our existing work covers these points. These are covered in more detail in the later sections of this Annex, split by the sections of the Ofgem/BEIS open letter. We also identify below where there are initiatives that might not sit within the Open Networks Project, but are connected and contributing to the delivery of the priorities set out in the letter.

We have highlighted in orange the areas where we have adjusted our 2019 work in light of the letter.

We have added potential dates to deliver 2020 work where we can to set expectation, but all 2020 dates are subject to our detailed planning and prioritisation and therefore may move.

[5] Ref to newsletter, AG slides

Activities for the ENA's Open Networks Project to progress Future Worlds	App Ref	Summary of what we are doing	Summary of what we will change/enhance	Expectation for 2020 Workplan
Set out a clear plan with ambitious timelines for identifying and delivering least regrets actions needed across all the Future Worlds. **Identify where decisions need to be made before these further actions can be delivered, including where current policy or regulation is a barrier, and discuss tangible recommendations with Ofgem or BEIS, as relevant, to remove these barriers.** **Set out a process for ensuring that appropriate information will be available to enable these decisions to be taken, and that actions are taken once these decisions are made.**	1.1	Progressing **least regrets actions i**n 2019**.** **Monitoring Implementation** of all ONP outcomes and Flexibility Commitment with next update by Dec 2019.	Consolidation and enhancement of existing products to deliver **Distribution System Operation (DSO) Implementation Plan** by Jun 2020	Publish 1st version of **Distribution System Operation Implementation Plan** – estimated Jun 2020. Progress contributing least regrets development and implementation across all workstreams. Maintain WS3 P7 (Conflicts of Interest & Unintended Consequences) & monitor in 2020. Continue input to and output from TEF & Trials in 2020. Potential further Modelling in 2020.
Facilitating coordination between flexibility markets and national balancing/ancillary markets to enable stacking of flexibility products and services. Deliver more efficient and transparent processes for curtailment at distribution, including coordination and **clarity on the interaction between active network management and flexibility markets.** Identifying where other organisations, including Ofgem and BEIS, need to take action, including to improve coordination, and producing specific recommendations for those parties.	1.2	**WS1A Products** aligning DSO and ESO services in 2019. Implementation **of 2018 WS1 P7 (ANM Information)** by Dec 2019. **WS1A P1 (Flexibility Market Principles)** 1st version published for consultation in Jul 2019.	Additional scope for **WS1A P5 (Conflict Management & Co-optimisation)** to deliver the following by Jan 2020: • Development of processes to support stackability across national and regional markets. • Clarify the interaction between ANM and flexibility markets	Complete **WS1A P5 (Conflict Management & Co-optimisation)** Jan 2020. Complete **WS1A P4 (Commercial Arrangements)**, incl. stackability for DSO services by Mar 2020. Continue development of convergent processes and standardisation of flexibility services in 2020. Consider any further coordination between local and national markets in 2020. Continued liaison with BEIS FleX competition participants.

Expectations on networks and system operators to work together to support competition	App. Ref	Summary of what we are doing	Summary of what we will change/enhance	Work for 2020
Theme: Consider flexibility services for all new network requirements on a business as usual basis.				
Roll out the full range of standardised flexibility products in line with those set out by the Open Networks in 2018. Determine whether further products are needed to address other system needs (e.g. voltage management).	2.1	Rolled out **2018 active power** services and provided visibility through the **Flexibility in GB webpage**. **WS1A P2 (Procurement Processes)** developed high level process for procurement^ and is seeking agreement on common titles for these services by Dec 2019.	N/A	Complete analysis of additional flexibility products in 2020. Continue implementation of good practice developed through WS1A in 2019. Publication of flexibility figures in 2020 will be split by DSO products.
Engage with prospective flexibility providers so that products can be formulated with their needs taken into account.	2.2	Consulted on **workplan** in Q1 2019. Developing **WS1A work** through significant stakeholder engagement. Collaborating with flexibility providers in developing **WS1A P6 (Facilitation to new markets**) by Dec 2019, including liaison with BEIS FleX competition participants.	Since the publication of the letter, we have provided the opportunity for any stakeholder to become part of our product development teams in WS1A.	Continue collaborative development with flexibility providers.
Actively consider longer and shorter-term flexibility products, taking account of factors such as option value and future technology costs.	2.3	**WS1A P2 (Procurement Processes)** identified consideration of both long and short term needs good practice^. **WS1A P4 (Commercial Arrangements)** identified good practice for contract durations, extensions and re-openers^.	N/A	Complete **WS1A P4 (Commercial Arrangements)** to deliver common contract by Mar 2020 followed by adoption of this contract by all DNOs.
Develop robust and transparent processes for identifying costs and benefits across solutions (including network reinforcement, distributed flexibility and network flexibility solutions).	**2.4**	**WS1A P2 (Procurement Processes)** recommended development of specific criteria for decision making^. Commitment to **Flexibility Next Steps** in Jun 2019. Will provide further clarity on where and when the Flexibility Next Steps will be implemented by each network company by Dec 2019.	Provide a more detailed view through **WS1A P2 (Procurement Processes)** on work required to deliver a process for the assessment of solutions in the pre-procurement and procurement stage by Jan 2020.	Implement and roll-out commitments and good practice in 2020. Further develop common processes and benefits in 2020. Continue focus on transparency in decision making in 2020. Raise industry change where appropriate.
Theme: Address conflicts of interest - building market confidence to invest in competitive flexibility.				

Demonstrate transparent processes for evaluating flexibility tenders, ensuring outcomes are transparent, predictable and justified.	**2.5**	As above, through monitoring implementation of **Flexibility Next Steps Commitment.** Working with industry to maintain **WS3 P7 (Potential Conflicts of Interest & unintended consequences)** register. 1st version will be published in Sep 2019.	As above, **WS1A P2 (Procurement Processes)** will provide clarity on assessment of tenders by Jan 2020. Additional scope for **WS1A P3 (Dispatch and Settlement)** to provide transparency on the dispatch by Jan 2020. Additional scope for **WS1A P5 (Conflict Management & Co-optimisation**) to clarify interaction between ANM and flexibility markets by Jan 2020.	Implement and roll-out commitments and good practice in 2020. Maintain **WS3 P7** in 2020 and ensure implementation of mitigating actions. Continue focus on transparency in decision making in 2020.
Implement measures that provide confidence in independence of decision making (e.g. independent auditing, ring-fencing of certain activities).	**2.6**	As above, **WS3 P7 (Potential Conflicts of Interest & unintended consequences)** register. There are different actions underway that are specific to different network operators and that we can't impose centrally due to different corporate structures or approaches to risk mitigation (e.g. company specific activities to mitigate conflicts of interest through audit or ring-fencing activities).	**N/A**	Implement and roll-out commitments and good practice. Maintain **WS3 P7** in 2020 and ensure implementation of mitigating actions.
Theme: Support the development of flexibility platforms and markets - facilitating increased levels of liquidity in flexibility markets.				
Standardise processes and methodologies for flexibility procurement across network and system operators.	2.7	**WS1A** is bringing convergence. **WS1A P2 (Procurement Processes)** and **WS1A P4 (Commercial Arrangements)** identified good practice to deliver convergence^.	N/A	Continue development work for convergence and standardisation. Complete existing initiatives and monitoring implementation of good practice.
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.	2.8	Consulted on our **workplan** in Q1 2019. Developing **WS1A** work through significant stakeholder engagement. Collaborating with flexibility providers in the development of **WS1A P6 (Facilitation to new markets)** for publishing by Dec 2019. **WS1A P2 (Procurement Processes)** will deliver agreement on common titles for active power services by Dec 2019.	Since the publication of the letter, we have provided the opportunity for any stakeholder to become part of our product development teams in WS1A.	Continue collaborative development with stakeholders. Progress trading of capacity and access rights to conclusion from non-SCR Industry led charging project.

^ A consultation was undertaken in Jul 2019. Depending on stakeholder feedback, further changes may be made to the product by Dec 2019.

Expectations on networks and the system operator to work together to deliver improved network and system co-ordination	App Ref	Summary of what we are doing	Summary of what we will change/enhance	Work for 2020
Theme: Driving planning and forecasting across network sectors				
Deliver integrated planning and forecasting across both Distribution and Transmission Networks. **Consider non-build solutions across distribution and transmission on a BAU basis**	**3.1**	**2019 WS1B** products are focussing on coordination across T and D through optimising processes such as Investment Planning (WS1B P1), long term forecasting (WS1B P2) and Operational Planning in real time (WS1B P3) as well as planning timescales (WS1B P4)	N/A	Continue development of **WS1B P1 (Investment Planning)** to reflect case study input by end 2020. Completion of T D **WS1B P4 (Data Exchange in Planning Timescales)** by Feb 2020 Implementation of **WS1B P2 (Whole system FES)** methodology into 2020 FES. Completion of **WS1B P3 (T D Operational Planning in real time)** depending on RDP output Implementation of **WS2 P1 (System Wide Resource Register)** in Jan 2020 & Jul 2020. Identify & raise industry change where appropriate. Further consideration of T-D improvements.
Identify where cross-vector approaches may deliver better outcomes for energy consumers and decarbonisation.	**3.2**	WS4 is delivering recommendations for cross vector improvements for **Real time/day ahead operations** (**WS4 P2)** and **Investment Planning** (**WS4 P4**) processes, focused on gas network developments.	**N/A**	Implementation planning for WS4 outcomes. Once 2019 products completed, develop further work on whole systems development.
Provide clear information on current and future system needs in a consistent interoperable format, developed in consultation with stakeholders.	**3.3**	**WS1B P1 (Investment Planning)** is enabling wider use of whole system solutions to meet T and D network needs. **WS1B P2 (Whole System FES)** is developing methodology for consistency in scenario development across T and D. **WS2 P1 (System Wide Resource Register**) is providing consistent information across all DNOs on flexible resources >1MW.	**WS1B P4 (Data Exchange in Planning Timescales**) will consider whether network planning data can be made available publicly by Feb 2020.	As above, implementation of **WS2 P1 (System Wide Resource Register)** in Jan 2020 & Jul 2020. Complete analysis of code changes and potential extensions of the **register** (e.g. for resources <1MW). Implementation of FES improvements. Execution of revisions to the NOA process in 2020. Completion of T-D data exchange in planning timescales and a view of potential implementation plans and potential Code changes. Developments from wider ENA data initiative.
Theme: Data provision enabling a smart energy system				
Set out a clear roadmap for timely data transparency and accessibility, taking into account	3.4	Open Networks work to date is well aligned with EDTF and is laying the foundations for common approaches for data exchange.	N/A	As above, implementation of **WS2 P1** (**System Wide Resource Register)** in Jan 2020 & Jul 2020.

recommendations from the Energy Data Taskforce.		**WS2 P1 (System Wide Resource Register**) is well aligned with the EDTF recommendations and the direction of travel on data access. ENA is working with Ofgem and BEIS to understand next steps for the EDTF recommendations and will support digitalisation of network data through a new **ENA Data working group**.		Support new data working group at ENA progressing digitalisation of network data and stakeholder event early 2020.
Theme: Key Enablers for system operation at the distribution level				
Improve the availability of network information in an interoperable format for planning and forecasting, such as load flow models; network headroom; asset data; and GIS data.	**3.5**	**WS1B P4 (Data Exchange in Planning Timescales)** is considering efficient data exchange between T and D networks and supporting mechanisms. As above, new **ENA Data working group** supporting digitalisation of network data.	**WS1B P4 (Data Exchange in Planning Timescales)** will develop a more detailed plan for implementation of CIM to support interoperability & will consider if network planning data can be made publicly available by Feb 2020.	Completion of T-D **WS1B P4 (Data Exchange in Planning Timescales**) and a view of potential implementation plans and potential Code changes Support new data working group at ENA progressing digitalisation of network data and stakeholder event early 2020.
Improve digital monitoring and communications infrastructure.	**3.6**	**WS1B P3 (Real Time Data Exchange)** and RDPs are looking at testing infrastructure and communication architectures to support real time data exchanges between T and D. ENA Strategic Telecoms Group is planning Comms infrastructure readiness with Joint Radio Company	N/A	Completion of **WS1B P3 (Real Time Data Exchange) RDPs** and any consequential implementation plans
Improve operational monitoring and real-time information to enable cost efficient flexibility markets.	**3.7**	Through **WS1B P3 (Real Time Data Exchange)** the information that will need to be exchanged to avoid transmission and distribution network service conflicts and to enable the optimal use of flexible resources are being further defined. ENA is working to understand smart meter data access & utilisation to improve operational monitoring.	N/A	Completion of **WS1B P3 (Real Time Data Exchange) RDPs** and any consequential implementation plans

1 Turning the Future Worlds into a plan for action

1.1 Activities from Future Worlds Consultation

Ofgem and BEIS highlighted the following key activities for Open Networks to progress following the consultation and highlighted that:

"The Future Worlds work has identified critical capabilities and coordination mechanisms that network companies and system operators need to develop, and the impact assessment has offered insights on the trade-offs for how responsibilities for these capabilities could be allocated. ***The Open Networks Project should progress with delivering tangible least regrets actions now – changes that will be needed in any future scenario - and identify the pathway for future development****."* Least regrets actions is a key input to the 2020 plan. The Distribution System Operation Implementation Plan will set out more clarity on when key enablers and least regrets developments will be complete and rolled out and is a key development product for 2020.

1.1.1 Enhancements to our current work to address additional asks from the letter

Given the comments outlined in the Ofgem and BEIS Letter, we have decided to bring more focus to this through re-shaping the scope for WS3 this year.

The diagram below reflects key changes that we have made to our baselined plan for WS3 to address these comments from the Ofgem and BEIS Letter.

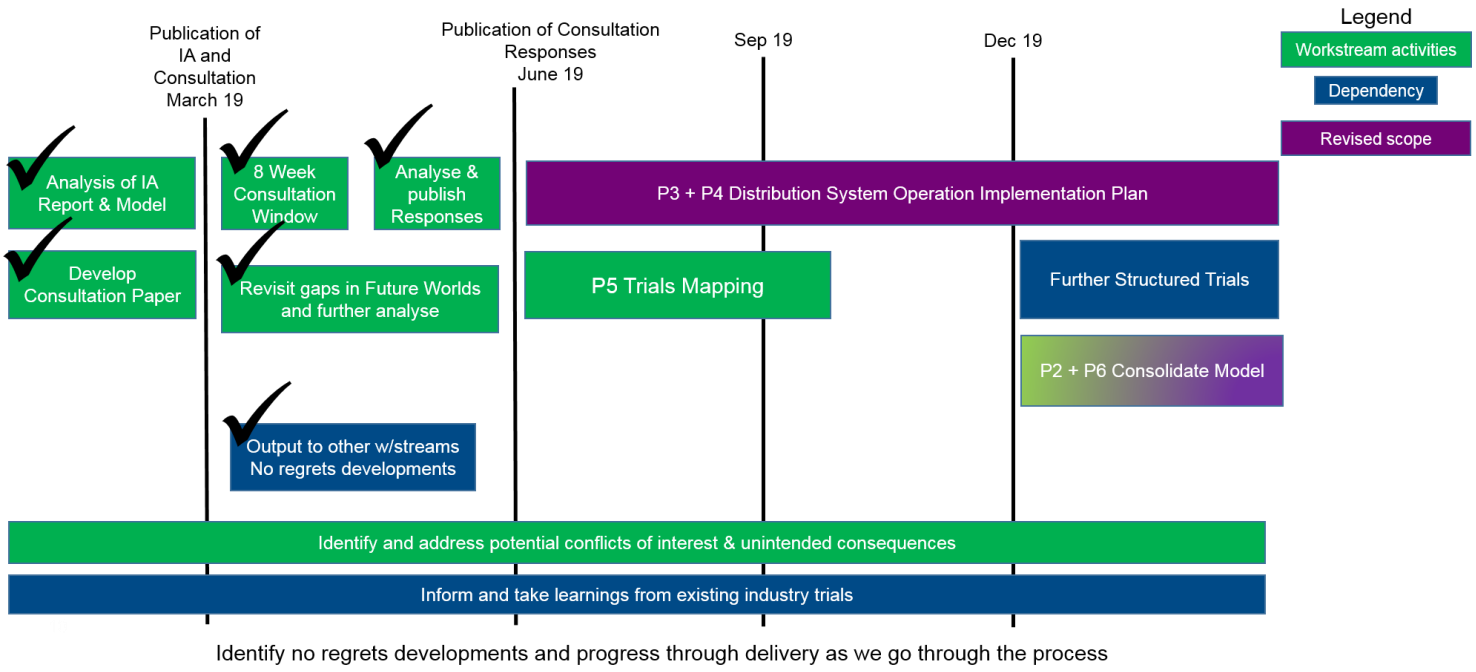


Figure 3 Proposed Adjusted Workstream 3 Development Plan

- We have consolidated two of our previous products to update the DSO transition roadmap (P4) and to identify key enablers (P3) into a clearer Distribution System Operation Implementation Plan. This product will review developments to date across all Open Networks workstreams and the Transition, EFFS and Fusion (T.E.F) Network Innovation Competition projects to map out actions (including enabling actions) that have been identified. These 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. This implementation plan will also map out any barriers (policy, regulatory or code change related) and will outline our best view on actions that we can take (such as providing relevant information) to facilitate their removal.

- We have decided to delay P6 Further Modelling to next year when the T.E.F projects are more progressed and there is more detail at a systems and components level to capture through modelling. We believe that this approach is least regrets. This product will be combined with P2 (Consolidate Future World Characteristics) to help consolidate a baseline model at the appropriate time.

1.1.2 Elements that Open Networks is addressing through current work

- The WS3 DSO Transition workstream has recently concluded the Future Worlds consultation[6] that sets the least regrets pathway through the development of DSO ESO coordination to build upon existing practices whilst delivering our Flexibility Commitments in the short to medium term. In addition to setting out a clear pathway up to 2030, this work highlights the need to maintain optionality and interoperability to accommodate the range of options and scenarios that may exist in the future.

- The work of WS3 in setting out the least regrets pathway is supplemented by the other Open Networks workstreams that are progressing the delivery of tangible least regrets outcomes across key areas such as flexibility services (WS1A), T D coordination for investment and operational planning (WS1B), connections and information provision (WS2) and cross energy vector improvements (WS4) to support the transition.

- Earlier on in 2019, we published a paper that outlines how the products scoped for this year are progressing the least regrets elements identified through the Future Worlds SGAM Modelling work in 2018.[7] Below is a brief summary of key least regrets developments that we are progressing through these workstreams this year.

[6] http://www.energynetworks.org/assets/files/Impact%20Assessment%20Consultation%20-%20ONP%20Response.pdf
[7] http://www.energynetworks.org/electricity/futures/open-networks-project/workstream-products/ws3-dso-transition/ws3-dso-transition.html

- WS1A – Convergence in how flexibility services are signalled, procured and utilised to meet network needs is a key step towards Distribution System Operation and the products in this workstream are scoped to deliver this. We have recently consulted on the work done to date in this workstream and the more detailed products are referenced in other sections of this letter, particularly Sections 1.2 and 2.

- WS1B – This workstream is progressing least regrets developments that relate to improving existing network planning and operational processes through increased coordination between Transmission (T) and Distribution (D). Building on the work done last year, this workstream is progressing developments on more detailed products described in other sections of this letter, particularly section 3.

- WS2 – As outlined through the least regrets analysis, connections and information provision will remain a core function across all future scenarios and this workstream is focussed on delivering improvements in this area.

    - This year, we have progressed action 1.6 of the Smart Systems and Flexibility Plan and has outlined a minded to position on Interactivity and Queue Management (WS2 P2 & P3) for consultation. As part of this, we have outlined options for enhancing capacity through promoting flexible resources (including storage) in the connections queue and we expect to complete this work in 2019.

- WS4 – The Whole Energy Systems workstream is progressing two products this year that are identifying and progressing least regrets opportunities for enhanced coordination between transmission companies, ESO, GDNs and DNOs to improve Investment Planning (WS4 P4) and Real Time/Day Ahead operational planning (WS4 P2), involving external stakeholders in our development work.

- In addition to the above, Open Networks has committed to undertaking a key activity to monitor and report against the deployment of practices developed through Open Networks on a bi-annual basis. We have now published the findings from our first review[8] that includes deployment of least regrets activities identified last year through good practice guides for various stages of the connections process.

- Recognising the breadth and scale of the work above, we scoped a product in WS3 to map out key capabilities required to progress the transition across various time

[8] http://www.energynetworks.org/assets/files/ON-PRJ-Monitoring%20Implementation%20(Q2%202019)%20-%20v3%20(for%20publishing).pdf

horizons to provide a consolidated roadmap of activities and capabilities required to progress the change (Distribution System Operation Implementation Plan).

- We will continue to progress P7 (Potential Conflicts of Interest & Unintended Consequences) and P5 (Identify Future World Elements to Trial) in line with the scope set out in the PID as these inform key aspects of the transition.

1.1.3 Expectation for 2020 Workplan

- Completion of Distribution System Operation Implementation Plan, including key enablers and timing for change, estimated in June 2020.
- Continuation of tangible least regrets outcomes across key areas such as flexibility services (WS1A), T D coordination for investment and operational planning (WS1B), connections and information provision (WS2) and cross energy vector improvements (WS4) to support the transition.
- Interaction with trials including NIC (Transition, EFFS & Fusion) and follow-up activity from the analysis of trials mapping underway with PNDC.
- We will be monitoring the implementation of the mitigating actions in P7 within the electricity networks in 2020 and beyond.
- Potential further modelling later in 2020.

1.2 Activities for Flexibility Services

Ofgem and BEIS highlighted the following key activities for Open Networks to progress for flexibility services as a core part of all Future Worlds and project work is highlighted against these activities below:

- Facilitating coordination between flexibility markets and national balancing/ancillary markets to enable stacking of flexibility products and services
- Deliver more efficient and transparent processes for curtailment at distribution, including coordination and clarity on the interaction between active network management and flexibility markets.
- Identifying where other organisations, including Ofgem and BEIS, need to take action, including to improve coordination, and producing specific recommendations for those parties.

1.2.1 Enhancements to our current work to address additional asks from the letter

Facilitating coordination between flexibility markets and national balancing/ancillary markets to enable stacking of flexibility products and services:

- In order to provide greater clarity to stakeholders on stackability of DSO flexibility products, WS1A P5 (Conflict Management & Co-optimisation) will now include additional scope to include the development of processes to support stackability across national (ESO) and regional (DNO) markets. This product will build on the ESO's work on stackability[9] to develop a look-up list for potential providers to clarify stackability for the four active power services that have been defined by Open Networks. This will be done so as to future proof for other services that may be produced in the future (e.g. reactive power support).
- The WS1A workstream is also linked to the BEIS FleX competition team and will be providing input to and taking output from the successful competition winners.

Deliver more efficient and transparent processes for curtailment at distribution, including coordination and clarity on the interaction between active network management and flexibility markets:

- WS1A P5 will include additional scope to make clear the interaction between ANM and flexibility markets

1.2.2 Elements that Open Networks is addressing through current work

Facilitating coordination between flexibility markets and national balancing/ancillary markets to enable stacking of flexibility products and services:

- Through the WS1A we have scoped 6 products for delivery this year that look at market principles and convergence across the various stages involved in the procurement of flexibility. Across all the products, we are looking at the alignment of DSO and ESO services in terms of procurement, timescales, service windows and contract terms through collaborative development.
- As referenced in our WS1A P1 Market Principles paper, *"System Operators should not hinder the opportunities for Market Participants to stack revenue only employing exclusivity clauses where appropriate."*, we recognise that non-exclusivity in the provision of services to both, the DSO and the ESO, will continue to be key to enable DER participation in multiple markets and we will continue to apply this principle in future development work. Avoiding exclusivity to allow revenue stacking is part of the development of the standard contract terms in WS1A P4 for DSO services and the ESO has separately taken action to review exclusivity from their service contracts.

[9] Slide 19-21
https://www.nationalgrideso.com/sites/eso/files/documents/ESO%20Balancing%20Services%20Guidance%20Document%20V1.pdf

Deliver more efficient and transparent processes for curtailment at distribution, including coordination and clarity on the interaction between active network management and flexibility markets:

- Last year, as part WS1 P7 (ANM Information), we developed a good practice guide for curtailment process and ANM reliability that covers both, the methodology for how the DNOs should consider curtailment for Flexible Connections and the metrics that should be considered when assessing installed ANM. As with all products, progress is being tracked through our Monitoring Implementation publication.

Identifying where other organisations, including Ofgem and BEIS, need to take action, including to improve coordination, and producing specific recommendations for those parties:

- WS1A P1 Flexibility Market Principles[10] goes beyond principles that apply to the DSO and outlines guiding behaviour for market participants and other players involved. This paper also highlights operating parameters that require regulatory approval, such as whether or not or the extent to which the system operator can offer flexibility services and more widely, the appropriate roles for the DNO in the flexibility market platform ecosystem and other services not yet defined.

1.2.3 Expectation for 2020 Workplan

- Completion of Conflict Management & Co-optimisation in January 2020.
- Completion of common commercial arrangements for DSO flexibility services to support stackability of services and adoption of those arrangements in March 2020.
- Continued development of convergent processes and standardisation for flexibility services and adoption of those processes.
- Complete analysis of any further co-ordination between local and national markets.
- Continued liaison with BEIS FleX competition participants.

1.2.4 Work within ENA but outside Open Networks

- ENA will continue to support charging developments through the provision of secretariat services to the Future Charging and Access SCR.

[10] http://www.energynetworks.org/assets/files/electricity/futures/Open_Networks/ON-WS1A-P1-Flexibility%20Market%20Principles%20(Final).pdf

2 Opening Networks to Competition

Within the open letter, there were three themes set out in this section with a number of more detailed bullets that set out the expectations on network companies to work together to deliver. Each of the three themes is picked out below with numbered headings underneath for the expectation bullets (to keep consistency on numbering for references in this letter) where we demonstrate how we will deliver on these.

In December 2018, all GB local electricity networks committed to openly testing the market for all new projects of significant value. Since then, we have seen a major uplift in tenders for flexibility services. Building on this commitment, the local electricity networks as well as GTC have highlighted the next major steps that they are undertaking to roll out flexibility more widely through the Flexibility Next Steps Commitment[11] and ENA will be monitoring the implementation of the actions required to deliver on those next steps:

- Champion a level playing field
- Ensure visibility and accessibility
- Conduct procurement in an open and transparent manner
- Provide clarity on the dispatch of services
- Provide regular, consistent and transparent reporting
- Work together towards whole energy system outcomes

Theme: Consider flexibility services for all new network requirements on a business as usual basis.

2.1 Roll out the full range of standardised flexibility products in line with those set out by the Open Networks in 2018. Determine whether further products are needed to address other system needs (e.g. voltage management).

2.1.1 Elements that Open Networks is addressing through current work

- The active power services that were defined by Open Networks in 2018 have been rolled out and are being procured by all six DNOs to meet network needs. This can be seen in the Flexibility Schedule that is published and maintained on the ENA Flexibility

[11] http://www.energynetworks.org/assets/files/ENA%20Flexibility%20Commitment%20Our%20Six%20Steps%20for%20Delivering%20Flexibility%20Services.pdf

in GB Webpage[12]. This page includes the latest flexibility figures that demonstrate the scale and size of markets and a Flexibility Schedule that shows a timeline of all flexibility procurement tenders with links to relevant pages. It must be recognised that there are not the same needs for services across all geographies and so we are unlikely to see universal procurement of all products across all networks, but where needs arise, we expect to see common services procured.

- Standardised Terms and Conditions for DSO services are being developed within Product 4 in WS1A with a planned delivery date of March 2020 with interim releases available earlier.

- Through our Monitoring Implementation activity, we have identified that all DNOs are procuring the active power services under different titles which can cause confusion for stakeholders. We have kicked-off additional work under WS1A P2 to agree common titles for these services that all DNOs can use. This was an enhancement to our original scope this year.

- Depending on the needs to the network, we recognise that services in addition to active power will be required. WS1A P2[13] has developed a high-level end to end process for the development of new services which we have consulted on as part of our Flexibility Services consultation recently. This process sets out good practice for a consistent approach that ensures that DNOs undertake appropriate engagement (with the ESO and potential providers) and that the right characteristics are defined for the service to manage the network issue.

- Many of these new services are also being trialled and tested under various NIA/NIC projects, and the learning from these will be brought back into Open Networks to ensure it is translated into BAU.

2.1.2 Expectation for 2020 Workplan

- In light of the comments regarding additional services, we will undertake a review in 2020 to determine upcoming service requirements for all DNOs and, depending on whether or not this requirement is common across most DNOs (and is not being progressed through other initiatives such as Power Potential), a decision will be made on any additional services (such as voltage management) that may need to be defined under Open Networks, rather than individually by networks utilising good practice outlined by WS1A P2.

[12] http://www.energynetworks.org/electricity/futures/flexibility-in-great-britain.html
[13] http://www.energynetworks.org/assets/files/ON-WS1A-P2%20DSOServices_ProcurementProcesses_Consultation_Final_2July%20v1.0%20(Published).pdf

- We will enhance the publication of flexibility statistics to include a break-down of flexibility by our 4 defined DSO services in 2020.

- Implementation of good practice from WS1A.

2.2 Engage with prospective flexibility providers so that products can be formulated with their needs taken into account.

2.2.1 Enhancements to our current work to address additional asks from the letter

- Since the publication of the letter, we have provided the opportunity for any stakeholder to become part of our product development teams in Workstream 1A and we have engaged with the BEIS FleX competition participants.

2.2.2 Elements that Open Networks is addressing through current work

- More broadly, in addition to consulting on our workplan in early 2019, we have engaged with prospective flexibility providers through a number of forums and channels including the Advisory Group sessions, public consultations, workshops, more targeted workshops and events. All our events and related material is published on our events page on the website. We have also presented at meetings hosted by trade associations to give further insight into our work more directly.

- More specifically for WS1A, we are developing our work through significant stakeholder engagement to understand the requirements of potential platforms and providers as they are a key stakeholder. We have recently consulted on all our work to date in this workstream and have factored in specific engagement activities as part of product development timelines to undertake this.

- WS1A is looking at how the DSO can enable new markets (such as peer to peer or capacity trading) in the future (WS1A P6) and collaborating with flexibility providers specifically and stakeholders more widely in development.

2.2.3 Expectation for 2020 Workplan

- Continued collaborative development with flexibility providers through the further development of products in 2020, as set out above.

2.3 Actively consider longer and shorter-term flexibility products, taking account of factors such as option value and future technology costs.

2.3.1 Elements that Open Networks is addressing through current work

- As part of good practice identified through WS1A P2[14], we have identified that DNOs would need to assess network needs on both a long and short-term basis and provide a clear and robust articulation of these. Longer term network needs can be signposted well in advance and shorter-term network needs need to be based on best information known at the time with recognition to its inherent limitations.
- As outlined in the WS1A P4 DSO Services Commercial arrangements paper[15] which we are consulting on, there are instances across networks of 4-year minimum contract lengths with potential for extension and 1 year rolling contracts, with contract length primarily driven by the flexibility service being procured. It is recognised that the duration of agreements are closely linked to network requirements so are therefore location responsive. This product identified the following as good practice:
    - Application of re-opener stages - For rolling contracts and longer duration contracts this report recommends a maximum of a 5-year period between re-opener stages, with the option for these to be more frequently reopened to new competitions as required.
    - Restriction or removal of contract extension - While 4 or 5-year contracts remain a possibility, 5 years should be the maximum contract length, and at this point the requirements should be subject to a new procurement or re-opener stage where the market can respond to the extended requirements and not just the incumbent supplier.
    - Agreement durations - Agreement durations should remain responsive to the locational and business drivers which define the flexibility service, implemented by the DSO as required. Agreement duration requirements will naturally evolve and durations reduce as markets mature and flexibility service management systems enable day ahead and real-time markets to become fully responsive. As such the product team have not specified an optimum agreement 'duration' as this could be restrictive until the market has matured sufficiently.

[14] http://www.energynetworks.org/assets/files/ON-WS1A-P2%20DSOServices_ProcurementProcesses_Consultation_Final_2July%20v1.0%20(Published).pdf
[15] http://www.energynetworks.org/assets/files/electricity/futures/Open_Networks/ON-WS1A-P4%20Interim%20Report-v1%20(published).pdf

2.3.2 Expectation for 2020 Workplan

- Completion of the convergence work and common commercial arrangements for DSO flexibility services and adoption of the common arrangements by all DNOs set out above in March 2020.

2.4 Develop robust and transparent processes for identifying costs and benefits across solutions (including network reinforcement, distributed flexibility and network flexibility solutions).

2.4.1 Enhancements to our current work to address additional asks from the letter

- We have enhanced the scope for WS1A P2 to include a more detailed review (than originally envisaged) of current DNO methodologies and processes for the assessment of solutions in the pre-procurement (how decision between asset vs market solution is made) and procurement stage (how flexibility tenders are assessed and the process as well as outcomes are shared in a transparent manner). This will identify gaps and inconsistencies and an implementation plan to close them out. The completion of the review is planned for delivery in January 2020 when we will look to plan implementation.

2.4.2 Elements that Open Networks is addressing through current work

- As part of the Flexibility Next Steps[16], all DNOs have committed to conducting procurement and dispatch in an open and transparent manner and will be transparent on how decisions are made in the various stages of procurement as well as for dispatch to select the most effective solution to meet network needs.

- In the stages leading up to procurement, DNOs have committed to being transparent on how and why solutions are chosen across the various options such as traditional network reinforcement, flexibility services from the market and smart grid solutions such as ANM.

- To provide further visibility of implementation of this, we will also publish by the end of the year where and when the clear action points in those next steps will be implemented by each of the network companies.

2.4.3 Expectation for 2020 Workplan

- Implementation and roll-out of commitments and good practice.

- Further develop common processes and benefits.

16 http://www.energynetworks.org/assets/files/ENA%20Flexibility%20Commitment%20Our%20Six%20Steps%20for%20Delivering%20Flexibility%20Services.pdf

- Continued focus on transparency in decision making.
- Raise industry change where appropriate.

Theme: Address conflicts of interest - building market confidence to invest in competitive flexibility.

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

2.5.1 Enhancements to our current work to address additional asks from the letter

- As outlined earlier, we have enhanced the scope for WS1A P2 to provide further clarity on how decisions are made for the selection on solutions, including how flexibility tenders are assessed and the process as well as outcomes are shared in a transparent manner.
- In addition to the above, Open Networks will undertake the following to build market confidence:
    - WS1A P3 will include additional scope to outline good practice for DNOs to provide transparency in the dispatch of flexible solutions.
    - WS1A P5 will include additional scope to make clear the interaction between ANM and flexibility markets.

2.5.2 Elements that Open Networks is addressing through current work

- As outlined in the response to section 2.4.2 above, the Flexibility Next Steps outline the commitment from all DNOs to conducting procurement in an open and transparent manner, including being fair and transparent on how flexibility tenders are evaluated and awarded.
- Additionally, the Flexibility Next Steps includes a commitment from all DNOs to take a fair and transparent approach in dispatching flexibility services to ensure market confidence and demonstrate transparency and independence of decision making. Through our monitoring implementation activity, we will be providing visibility of progress on this.
- WS3 Product 7 will continue to be the central location for monitoring Conflicts of Interest/Unintended Consequences and tracking their progress and eventual mitigation strategies.

2.5.3 Expectation for 2020 Workplan

- Implementation and roll-out of commitments and good practice.

- Continued focus on transparency in decision making.
- Maintain WS3 P7 in 2020 and ensure implementation of mitigating actions.

2.6 Implement measures that provide confidence in independence of decision making (e.g. independent auditing, ring-fencing of certain activities).

2.6.1 Elements that Open Networks is addressing through current work

- As part of the scope for WS3 P7 Potential Conflicts of Interest and Unintended Consequences, we are working closely with stakeholders and industry to investigate and address potential conflicts of interest in the network and system operator functions of the DSO as well as continue work on the identification of unintended consequences and mitigating actions that are required to ensure a fair marketplace that deliver the best outcomes for the consumer. This product will remain an ongoing activity for the project and will be published on a regular basis to provide visibility of our work on this. The key to implementation is identifying mitigating action and an owner for delivery of that action which will be tracked.
- We shared an initial view of this product with our Advisory Group in July 2019[17] and there was strong support for this product. We have now incorporated the proposed changes and will be publishing the first iteration in September 2019.
- We will be monitoring the implementation of the mitigating actions in P7 within the Electricity Networks in 2020 and beyond.
- Confidence is built by an approach to openness and transparency which is set out in the Flexibility Commitment next steps.

2.6.2 Elements that Sit Outside ENA

To supplement the common risks and mitigation that we can identify within Open Networks, there are different actions underway that are specific to different network operators and that we can't impose centrally due to different corporate structures or approaches to risk mitigation (e.g. company specific activities to mitigate conflicts of interest through audit or ring-fencing activities).

2.6.3 Expectation for 2020 Workplan

- Implementation and roll-out of commitments and good practice.

[17] Slides and supporting documents can be found on this page http://www.energynetworks.org/electricity/futures/open-networks-project/open-networks-project-stakeholder-engagement/events.html

- Maintain WS3 P7 in 2020 and ensure implementation of mitigating actions.

Theme: Support the development of flexibility platforms and markets - facilitating increased levels of liquidity in flexibility markets.

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

2.7.1 Elements that Open Networks is addressing through current work

- WS1A was created as a separate workstream earlier this year to bring convergence across DNOs flexibility related activities and to align with ESO as much as possible. The following products are focussing on alignment of flexibility procurement related activity:
    - WS1A P2 Procurement Processes[18] is bringing convergence through defining a high-level end to end process and good practice for how DNOs identify needs and procure flexibility. In setting out this process, this product identifies key areas for interaction with the ESO. This product has also set out a process for DNOs to follow for the development of new services to meet additional network needs.
    - WS1A P4 Commercial Agreements[19] has taken on board stakeholder feedback and in addition to outlining good practice for commercial agreements with flexibility providers, this product is also developing a common commercial agreement for all DNOs to use with providers. As part of developing this agreement, the product is working closely with the ESO to progress alignment. This common agreement and an implementation plan for rollout will be completed by March 2020 and with the intention for all DNOs adopt it for future procurement activities.

2.7.2 Expectation for 2020 Workplan

- Continued development work for convergence and standardisation.
- Completion of existing initiatives and monitoring implementation of good practice and use of standard arrangements.

2.8 In discussion with platform and flexibility providers, identify and implement actions to facilitate the development of flexibility

[18] http://www.energynetworks.org/assets/files/ON-WS1A-P2%20DSOServices_ProcurementProcesses_Consultation_Final_2July%20v1.0%20(Published).pdf
[19] http://www.energynetworks.org/assets/files/electricity/futures/Open_Networks/ON-WS1A-P4%20Interim%20Report-v1%20(published).pdf

marketplaces and the participation of flexibility providers, for example common product descriptions, etc.

2.8.1 Elements that Open Networks is addressing through current work

- More broadly, in addition to consulting on our workplan in early 2019, we have engaged with potential platforms through a number of forums and channels including the Advisory Group sessions, public consultations, workshops, more targeted workshops and events with potential platform and flexibility providers. All our events and related material is published on our events page on the website.
- More specifically for WS1A, we are developing our work through significant stakeholder engagement to understand the requirements of potential platforms and providers as they are a key stakeholder. We have recently consulted on all our work to date in this workstream and have factored in specific engagement activities as part of product development timelines to undertake this.
- We have provided the opportunity for any stakeholder to become part of our product development teams in Workstream 1A.
- Workstream 1A is looking at how the DSO can enable new markets (such as peer to peer or capacity trading) in the future (WS1A P6) and collaborating with flexibility providers specifically and stakeholders more widely in development.

2.8.2 Work within ENA but outside Open Networks

- ENA will continue to support delivery of the non-SCR charging work reporting to the Open Networks Steering Group. This includes development work on Trading of Non-firm DG curtailment obligations and Exchange of access rights between users and we will ensure that this work is progressed through to conclusion in Open Networks alongside further development of WS1A P6.

2.8.3 Expectation for 2020 Workplan

- Continued collaborative development with stakeholders.
- Trading of Non-firm DG curtailment obligations and Exchange of access rights between users progressed through to conclusion alongside further development of WS1A P6.

3 Improved network and system co-ordination

Within the open letter, there were three themes set out in this section with a number of more detailed bullets that set out the expectations on network companies to work together to deliver. Each of the three themes is picked out below with numbered headings underneath for the expectation bullets (to keep consistency on numbering for references in this letter) where we demonstrate how we will deliver on these.

Theme: Driving planning and forecasting across network sectors

3.1 Deliver integrated planning and forecasting across both Distribution and Transmission Networks and Consider non-build solutions across distribution and transmission on a BAU basis

We have considered these two expectations together as they are covered by the same areas of work.

3.1.1 Elements that Open Networks is addressing through current work

- WS1B was established to focus on coordinating and optimising planning and forecasting processes across Electricity Transmission and Distribution.
- WS1B P1 (Investment Planning) is looking at expanding the Network Options Assessment process (NOA) process to look at how distribution-based solutions (including asset and market solutions) can be considered alongside transmission solutions to resolve issues such as High Volts on the transmission network.
- WS1B P2 (Whole System FES) is developing a process that enables a more coordinated approach between the ESO, TOs and DNOs in the development of Future Energy Scenarios through common building blocks to improve regional outputs. Improved distribution level assumptions are also being built into GB wide scenarios.
- WS1B P3 (Real Time Data Exchange) is taking the learnings from the RDPs and other projects assessing data exchange to develop operational data exchange standards and control architectures to facilitate whole electricity system coordination in real time.
- WS1B P4 (Data Exchange in Planning Timescales) is considering what data should be shared between Electricity Transmission and Distribution to improve whole system planning and how this data can be shared more efficiently between Transmission and Distribution through improved mechanisms for data exchange.
- WS2 P1 (System Wide Resource Register) is making information on the resources connected to Electricity Transmission and Distribution networks more accurate and more accessible so that whole system network investment and services can be more effectively planned.

- Flexibility Commitment to non-build solutions and implementation as per previous sections.

3.1.2 Expectation for 2020 Workplan

- Investment Planning development from HV case study for end 2020, or earlier if possible, from case study input.
- Completion of T-D data exchange in planning timescales, a view of potential implementation plans and raising potential Code changes by February 2020.
- Enhanced collaboration during the development of GB FES 2020 and development of common standards and format to facilitate benchmarking between GB FES and regional DFES.
- Completion of WS1B P3 T D Operational Planning in real time depending on RDP output.
- Implementation of System Wide Resource Register January 2020 and July 2020. Consideration of code changes and potential extensions of the register (e.g. for resources below 1MW).
- Further consideration of T-D improvements.
- Implementation of flexibility commitment next steps for non-build solutions.

3.2 Identify where cross-vector approaches may deliver better outcomes for energy consumers and decarbonisation.

3.2.1 Elements that Open Networks is addressing through current work

- WS4 was setup earlier this year to deliver a more integrated approach to whole energy systems that takes other energy vectors into account. The following products are being progressed through this workstream and will be delivering recommendations for improvements and implementation plans to take these forward.
- WS4 P2 (Real time/day ahead operations) is identifying opportunities where increased information sharing between electricity, gas and other stakeholders can make real time /day ahead operational activities more efficient and benefit customers and networks.
- WS4 P4 (Investment Planning) is identifying opportunities for coordination, collaboration and refinements to the existing investment planning processes across gas and electricity in the medium to longer term (>3 years) that can deliver tangible benefits.

3.2.2 Expectation for 2020 Workplan

- Implementation planning for outcomes from WS4 from 2019.
- Once the priority of planning and forecasting is complete (as per Ofgem/BEIS open letter), develop further products for this workstream in 2020.

3.3 Provide clear information on current and future system needs in a consistent interoperable format, developed in consultation with stakeholders

3.3.1 Elements that Open Networks is addressing through current work

- WS1B P1 (Investment Planning) is developing and putting in place processes that will enable the wider use of whole system solutions and flexible resources to address network investment requirements on Transmission and Distribution networks.
- WS1B P2 (Whole System FES) is developing and putting in place methodologies and processes to improve the quality and consistency of the future scenarios developed by Transmission and Distribution network companies. For example, the underlying building blocks that are used to describe and build scenarios are being made consistent across network companies. Regional and GB wide assumptions are also being shared to improve alignment.
- WS2 P1 (System Wide Resource Register) is making information on resources that are already connected, or approved to connect, to GB networks more comprehensive and more widely available. This should enable network users and network companies to better understand where there are opportunities to connect and opportunities to utilise flexible resources.

3.3.2 Expectation for 2020 Workplan

- Implementation of System Wide Resource Register, consideration of code changes and potential extensions of the register (e.g. for resources below 1MW).
- Implementation of FES improvements.
- Execution of revisions to the NOA process in 2020.
- Completion of T-D data exchange in planning timescales and a view of potential implementation plans and potential Code changes.
- There is a wider data initiative in ENA that we expect will generate further data developments in ENA.

Theme: Data provision enabling a smart energy system

3.4 Set out a clear roadmap for timely data transparency and accessibility, taking into account recommendations from the Energy Data Taskforce

3.4.1 Elements that Open Networks is addressing through current work

- Work to date on Open Networks is well aligned with the EDTF recommendations as it is laying the foundations for a common approach across networks to define new processes that support transparency in information provision and data exchange. As the project continues to build on this work to deliver DSO functionality, the EDTF recommendations and any further developments will be key dependencies to continue to ensure alignment.
- ENA has undertaken a mapping exercise to understand how the various Open Networks Products across the 5 workstreams align to the EDTF recommendations. This work was provided to Ofgem/BEIS and identified that all work is able to be progressed as the products align well with the EDTF recommendations.
- Through our work on WS2 P1 (System Wide Resource Register), are progressing the implementation of the system wide resource register to provide improved information to electricity network stakeholders on connected resources and network requirements. It would comprise data registers for each of the network companies in a consistent format that would be regularly updated. All DNOs have committed to implement the first phase of this register by 2020 and the final phase by July 2020.
- The System Wide Resource Register aligns with the 5 EDTF recommendations and the direction of travel on data access. This register could be one of the first energy system data sets that is accessed via EDTF's proposed catalogue.
- ENA has initiated a wider data initiative across gas and electricity progress digitalisation and Energy Data Task Force recommendations.

3.4.2 Expectation for 2020 Workplan

- Implementation of System Wide Resource Register in January 2020 and July 2020, consideration of code changes and potential extensions of the register (e.g. for resources below 1MW).
- Completion of T-D data exchange in planning timescales and a view of potential implementation plans and potential Code changes.

- There is a wider data initiative in ENA that we expect will generate further data developments in ENA. We expect to support this, including the proposed digitalisation stakeholder event in early 2020.

3.4.3 Work within ENA but outside Open Networks

- ENA is working with Ofgem and BEIS to understand the next steps for the EDTF recommendations, and wants to work with industry to ensure they are implemented in a timely manner.

Theme: Key Enablers for system operation at the distribution level

3.5 Improve the availability of network information in an interoperable format for planning and forecasting, such as load flow models; network headroom; asset data; and GIS data

3.5.1 Enhancements to our current work to address additional asks from the letter

- In light of this action WS1B P4 will look at develop a more detailed development plan and a high-level cost analysis for the implementation of Common Information Models. This product will now require additional resources with relevant IT systems expertise and the completion of WS1B P4 is likely to be delayed by two months as a result of this.
- WS1B P4 will also additionally consider whether or not areas of network planning data that may be useful to network users or potential network users can be made available more widely. This product will identify any barriers that may be preventing this.

3.5.2 Elements that Open Networks is addressing through current work

- WS1B P4 (Data exchange in Planning Timescales) is already considering how data exchange between Electricity Transmission and Distribution network companies can be improved both in the scope of the data, and in how the data is shared more efficiently. Less resource intensive methods for data transfers (including the Common Information Model) are also being investigated give that the volumes of data transfer are likely to increase.

3.5.3 Work within ENA but outside Open Networks

- ENA is working with Ofgem and BEIS to understand the next steps for the EDTF recommendations and wants to work with industry to ensure they are implemented in a timely manner. It may be that some of this data that does not naturally sit within the exchange of planning data between T & D (e.g. GIS data) will be implemented outside Open Networks but as part of the wider ENA Data Working Group.

3.5.4 Expectation for 2020 Workplan

- Completion of T-D data exchange in planning timescales and a view of potential implementation plans and potential Code changes by February 2020.

3.6 Improve digital monitoring and communications infrastructure

3.6.1 Elements that Open Networks is addressing through current work

- Through WS1B P3 (Real Time Data Exchange) and the RDPs the DNOs and the ESO are identifying and testing infrastructure and communications architectures that are required to support real time operational planning between Transmission and Distribution.

3.6.2 Work within ENA but outside Open Networks

- Communications infrastructure readiness is being planned and co-ordinated by the ENA Strategic Telecommunications Group, which includes the Joint Radio Company (JRC).

3.6.3 Expectation for 2020 Workplan

- Completion of real time data exchange and any consequential implementation plans.

3.7 Improve operational monitoring and real-time information to enable cost efficient flexibility markets

3.7.1 Elements that Open Networks is addressing through current work

- Through WS1B P3 the information that will need to be exchanged to avoid transmission and distribution network service conflicts and to enable the optimal use of flexible resources are being further defined. The specific items of data to be transferred and methods of data transfer are also being better defined and tested.

3.7.2 Work within ENA but outside Open Networks

- ENA is working to understand how smart meter data can be accessed and utilised by networks to improve operational monitoring.

3.7.3 Expectation for 2020 Workplan

- Completion of real time data exchange and any consequential implementation plans.