

# FUSION

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Funding Condition Compliance  
Document  
June 2018



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**Open Networks Steering Group Meeting**

25 Jun 2018

ENA, London

**Attendees:**

Name		Company	Name		Company
Alice Fourrier	AF	BEIS	Tony Hearne	TH	ESBN
Steve Mockford	SM	GTC	Steve Atkins	SA	SSEN
Cara Blockley*	CB	ENWL	Julian Leslie*	JL	NG (SO)
Louise van Rensburg	LvR	Ofgem	Jason Brogden	JB	ENA
Jim Cardwell	JC	NPG	Kyle Murchie**	KM	SSEN
Mark Perry	MP	NG (TO)	Paul Fidler	PF	ENA
Gerard Boyd	GB	SPEN	Farina Farrier	FF	ENA
Sotiris Georgiopoulos	SG	UKPN	Suzanna Jebbitt***	SJ	ENA
Nigel Turvey (Chair)	NT	WPD			

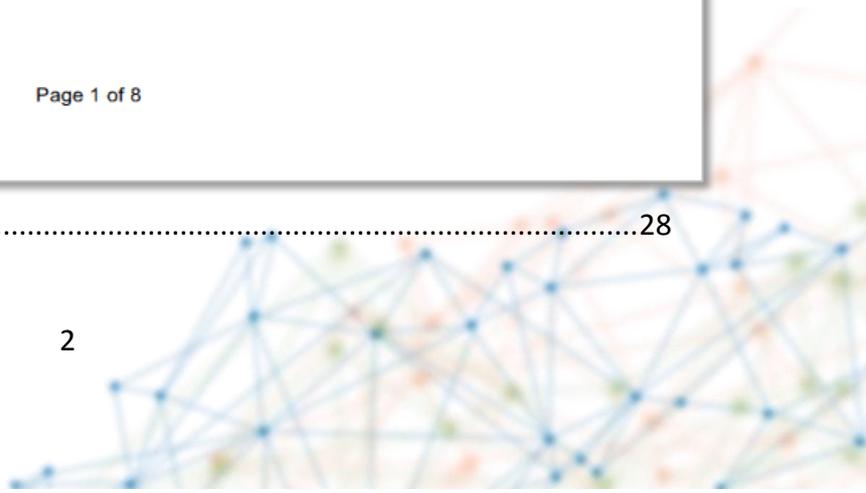
\*Teleconference

\*\* Agenda item 2 only

\*\*\* Agenda item 6 only

**Apologies:**

Name		Company	Name		Company
Webster Greenleaf	WG	ENA	Andrew Jenkins	AJ	NPg
Stewart Reid	SR	SSEN	Randolph Brazier	RB	ENA
Cara Blockley	CB	ENWL	Matt White	MW	UKPN
Padraig Lyons	PL	ESBN	David Capper	DC	BEIS
Joseph Donohoe	JD	NG (SO)	Steve Cox	SC	ENWL
Paul McGimpsey	PM	SPEN	Jim McOmish	JM	SPEN
Deborah MacPherson	DM	SPEN (TO)	Ian Bailie	IB	NIEN



Item	Decision / Action	Responsible
1.	<p><b>Welcome and Introductions</b></p> <p>NT welcomed attendees and introductions were made.</p>	NT
2.	<p><b>Review open actions</b></p> <p>No comments from previous minutes.</p> <p>Closed Actions</p> <ul style="list-style-type: none"> <li>15/3 &amp; 17/1 – Meeting scheduled for 11<sup>th</sup> July with Rhiannon Marsh from Power Responsive to discuss ongoing engagement.</li> <li>17/4 – LvR confirmed date for CFF consultation is w/c 16<sup>th</sup> July.</li> <li>18/1 – A note was sent out to WS4 to recognise their efforts under CFF Taskforces.</li> <li>18/3 – Letter has been sent to all DNOs. JL discussed that it would be useful to discuss principles once all the responses have been received.</li> <li>18/4 – Links shared with TH.</li> <li>18/2 – LvR advised that Edwin Tammas-Williams can be added to the product team for now to flag any structural issues.</li> </ul> <p>Open/Ongoing Actions</p> <ul style="list-style-type: none"> <li>16/9 - Ongoing</li> <li>17/2 – Proposals being presented to SMT today.</li> </ul>	JB
3.	<p><b>T.E.F Collaboration Approval</b></p> <p>KM discussed the slides and highlighted that endorsement from the ON Steering Group is needed before the final T.E.F Collaboration documents can be submitted to Ofgem for approval.</p> <p>Key discussions:</p> <ul style="list-style-type: none"> <li>LvR advised that she will not formally be involved in the endorsement of this document via the ON Steering Group as final approval will be provided Ofgem's final review</li> <li>KM highlighted that the role of the ON Steering Group is to ensure alignment with Open Networks. The T.E.F team will be working with the product teams and workstreams to ensure that the inputs from Open Networks are taken on board and outputs from T.E.F are fed into the products where required, as highlighted in the table in the report and slides. Other NIA projects are also expected to be included.</li> <li>KM discussed that common areas included the consideration of forecasting, a common neutral market facilitator platform (Transition) and the associated algorithms (EFTS).</li> <li>LvR reiterated the significance of alignment with Open Networks and asked whether this work would support all Worlds, including NETSO coordinates. KM explained that the stage gate reviews would allow for consideration of the progress made for the various Worlds and help shape the direction and scope for T.E.F projects. KM highlighted that the Flexibility Driven Pricing model could be layered on any of the other models.</li> <li>In response to a question from LvR, GB discussed that a workshop is planned with EATL to discuss how USEF would align with the Future</li> </ul>	KM



Item	Decision / Action	Responsible
	<p>Worlds that have been developed under ON. JB highlighted that it would be useful to include the least regret elements as part of this to ensure next key steps are aligned.</p> <p>The Steering Group discussed potential topics for 2019, including:</p> <ul style="list-style-type: none"> <li>• Trials; TEF development; NIA projects</li> <li>• Impact Assessment – support to Ofgem/BEIS policy</li> <li>• Progressing DSO Least Regrets requirements to implementation</li> </ul> <p>The Steering Group endorsed the T.E.F Collaboration document for submission to Ofgem.</p>	
4.	<p><b>Update on coordination with ESO initiatives</b></p> <p>JB discussed that the table shared with the Steering Group captures the initiatives under the ESO Forward Plan and the collaboration that is required with the Open Networks project. This will allow greater transparency and consistency across the two areas of work. The Whole Energy System Strategy is key as it cuts across all ON workstreams and discusses the principles and roles in ensuring the transition.</p> <p>Key discussions:</p> <ul style="list-style-type: none"> <li>• SG asked for firmer dates on the Whole Energy System strategy so early engagement can be planned.</li> <li>• JB discussed that a stronger theme for collaboration with Open Networks should be reflected in the ESO Forward Plan updates based on the collaboration identified and interactions that are taking place.</li> <li>• RB is speaking at the next Power Responsive forum to outline some of this collaboration and ON has a stand at the FES event.</li> <li>• The Steering Group requested more interaction with Open Networks as part of this and next years' work under the ESO Forward Plan with more detail on the planned milestones.</li> <li>• Each workstream is to review and work with National Grid representatives to provide input and maintain consistency in the output from ONP &amp; ESO Forward Plan.</li> </ul> <p>Action JL: To request further Open Network references in future ESO Future Plan updates</p>	JB & JL
5.	<p><b>Update from Electricity Regulation Group</b></p> <ul style="list-style-type: none"> <li>• ERG meeting was held on 20<sup>th</sup> June and the key output from the discussion as described in the progress report was the need for Open Networks to collaborate and feed into the RIIO T2 submissions. The actions identified were for more liaison with Ofgem and ERG and feed into assumptions being considered based on the potential future Worlds and their impact assessment.</li> <li>• LvR advised that Ofgem will advise of next steps on the license conditions that have been fed in through WS1.</li> <li>• LvR agreed to follow up with meeting with ONP and RIIO colleagues</li> </ul>	JB



Item	Decision / Action	Responsible
	<ul style="list-style-type: none"> <li>ERG highlighted the need to review the Smart Systems and Flexibility Plan and the commitments that have been made into it to ensure delivery to specified timescales.</li> <li>AF highlighted that BEIS are interested in reviewing the assessment criteria and BEIS analysts are happy to provide further input into this. JB discussed that the criteria and other elements of the consultation are being reviewed with WS3 and content is available to all workstream members. AF to consider input and review comments into WS3 P4 development. Below is a link to this material:  <a href="https://my.huddle.net/workspace/38719842/files/#/folder/45830968/list">https://my.huddle.net/workspace/38719842/files/#/folder/45830968/list</a></li> </ul> <p>Action: AF to consider input to WS3 Impact Assessment criteria (P4) Action: LvR JB to arrange meeting with LvR, Ofgem RII02 team and ONP</p>	
6.	<p><b>WS5 update</b></p> <ul style="list-style-type: none"> <li>WS5 will be reviewing the WS3 consultation document next week.</li> <li>WS5 are currently planning stakeholder briefing events to support this consultation. SJ invited feedback from the Steering Group on what aspects need to be highlighted at the dissemination events. JC discussed that it would be useful to get feedback on the least regret elements from stakeholders to get their views on the work that can be progressed.</li> <li>LvR highlighted that we need to be clear in the consultation that the output from Open Networks is providing evidence into Ofgem and BEIS but that the policy decision on future worlds sits with Ofgem to avoid any confusion for stakeholders.</li> <li>SJ discussed that WS5 are considering a research piece to get some more engagement for Open Networks. This is likely to be based on smart cities and the benefits of Open Networks for various community or consumer groups.</li> </ul>	SJ
7.	<p><b>Workstream Updates – key progress, issue and next steps items for SG</b></p> <p>All workstream leads gave an overview of updates covered in the progress report. Key items discussed are captured below.</p> <p>WS1: T-D process (SG)</p> <ul style="list-style-type: none"> <li>SG discussed that a meeting was recently held with Cathy McClay from National Grid to discuss the issue of DNOs having visibility of the DER contracts with the SO as this impacts DNO operation. Cathy McClay was keen for more data to support ESO demand forecasting. SG highlighted that further discussions would be needed to progress this issue, potentially via the ESO team but it was agreed through Workstream 1 for a more consolidated review of this issue. SG also proposed to that the key issues need to be identified and highlighted in the ON Data paper to Ofgem with an agreed resolution plan. AF highlighted that BEIS were currently looking at data and that this would be a topic for the Smart Systems Forum.</li> </ul> <p>Action: JB Distribute paper on data initiatives</p> <p>WS2: Customer experience (JC)</p>	WS Leads

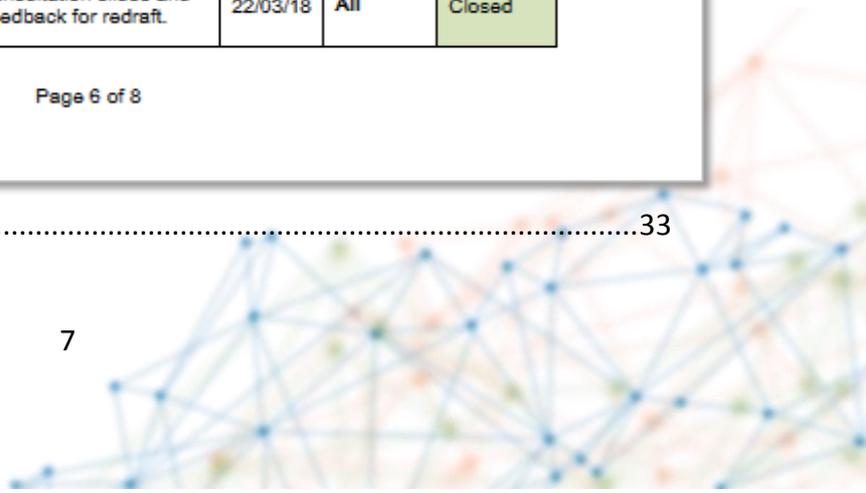


Item	Decision / Action	Responsible
	<ul style="list-style-type: none"> <li>Management of Capacity (P2) has overlap with work being done under CFF. JC has had a discussion with Mohamed Khalid and Jon Parker from Ofgem to discuss how this work would dovetail with work from CFF. Whilst some of the earlier components of the scope under this product do not overlap and can be progressed in the interim, other elements of scope would require a further discussion with Ofgem. This discussion will be held once the CFF consultation is published to see how these elements of work under this product can be more aligned with Ofgem's work. This may affect the scope and timing of this work.</li> </ul> <p>WS3: DNO to DSO Transition (SA)</p> <ul style="list-style-type: none"> <li>WS3 will be reviewing the key sections of the Future Worlds consultation, including the least regret analysis which EATL have now revised and the assessment criteria for the Impact Assessment at the next meeting on 28<sup>th</sup> July.</li> </ul> <p>WS4: Charging</p> <p>Please refer to update below from Paul McGimpsey</p> <p><a href="https://my.huddle.net/workspace/38719842/files/#/63041590">https://my.huddle.net/workspace/38719842/files/#/63041590</a></p>	
8.	<p><b>Project Progress Update</b></p> <ul style="list-style-type: none"> <li>JB gave an overview of product progress and discussed that we are closely monitoring the work under the CUSC working Group and the RDPs to manage any impacts on the ON products.</li> <li>JB highlighted the need to get Ofgem input into the Impact Assessment work delivered under WS3 P4 to ensure that the deliverables are fit for purpose and enable decision making. LvR volunteered Edwin Tammam-Williams to provide this input.</li> </ul>	JB
9.	<p><b>AOB</b></p> <ul style="list-style-type: none"> <li>Next meeting: 26<sup>th</sup> July</li> <li>LvR confirmed that the CFF public consultation will be launched in the w/c 16<sup>th</sup> July.</li> <li>Martin Cave has now been announced as Ofgem new chair and 2 new NEDs announced.</li> <li>Huddle is now being used as the file sharing platform for Open Networks.</li> <li>AF suggested that older Steering Group meeting documents should be uploaded to Huddle for ease of access, particularly for new representatives joining the Steering Group.</li> </ul> <p>Action: JB/FF to arrange uploading previous Steering Group meeting documents on Huddle.</p>	NT

#	Closed Actions	Created	Person	Status
13/4	DNOs to notify ENA of any DSO NIC bids being considered for 2019. Done information sharing, but	19/12/17	All	Closed



#	Closed Actions	Created	Person	Status
	nothing specific for DSO. 2019 NIC bids – ENA doing joint call.			
13/5	NIC DNOs to present proposals for use of ONP for collaboration to March Steering Group. Will follow up in April SG meeting after Frank Clifton's presentation today (March SG).	19/12/17	NIC DNOs	Closed
13/6	SG members to respond with resources in template provided. As discussed in agenda item 6 (delivery risk).	19/12/17	All	Superseded
14/3	JD to share details from work being undertaken to identify actions to support the Smart Systems and Flexibility Plan with the Steering Group. Actions identified under SPIA – to be shared by JD.	23/01/18	JD	Closed
14/7	RB to share list of attendees for the FPSA 4 workshop with the Steering Group and any further information.	23/01/18	RB	Closed
15/1	SJ to discuss with Power Responsive linking newsletter updates. Include updates under wider industry update.	22/2/18	SJ	Closed
15/2	Everoze to be invited onto the Advisory Group	22/2/18	ENA	Closed
15/5	JB to respond to EATL with conclusions. On board for the additional 2 models. Has more information.	22/2/18	JB	Closed
10/4	JB & LvR to discuss how to best engage with collaborative NIC projects to support Open Networks for 2018. Had meeting with Ofgem last week. FF has circulated notes. Ofgem to provide feedback.	10/02/17	JB	Closed
14/1	EG to draft ONP stance on Transmission charging and how input is being provided through Ofgem's CFF. <i>Support provided to CFF is clear in PID, but there is a need to get the messaging out more strongly.</i>	23/01/18	EG	Closed
15/4	ENA to consider existing tenders and future markets to make the case to investors to engage; ENA to further discuss nature of the event with Everoze and come back to Steering Group with proposal. AF going to follow up with Will (Ofgem). Discussions being held with BEIS (Ian Payne).	22/2/18	ENA	Closed
16/1	SJ to share WS5 grid with Steering Group.	22/03/18	SJ	Closed
16/2	Everyone in Steering Group to share upcoming events, speaking opportunities, newsletter articles they want shared and consultations with SJ.	22/03/18	All	Closed
16/3	Steering Group to read through consultation slides and send in by Monday (26/03) with feedback for redraft.	22/03/18	All	Closed



The Voice of the Networks

#	Closed Actions	Created	Person	Status
16/4	RB and SR to talk to ERG about models and CBA.	22/03/18	RB/SR	Closed
16/5	ENA to go and brief regulation group. JB to speak next Thursday.	22/03/18	JB	Closed
16/7	JB to send request for contributing resource from stakeholders to deliver WS2 products to Advisory Group, distribution list and DER Connections Steering Group .	22/03/18	JB	Closed
16/8	All Steering Group members to provide comments on NIC collaboration proposal by 5 <sup>th</sup> April. Approval on updated documents will be sought on the 26 <sup>th</sup> of April.	22/03/18	All	Closed
16/10	Add unintended consequences (market or technical) to risk register.	22/03/18	JB/FF	Closed
16/11	JB Invite Electralink to the Advisory Group	22/03/18	JB	Closed
13/3	ENA to consider more technical voiceover for informed audience. SJ discussing additional potential cost and time. SJ to update at next Steering Group meeting. SR to share script for local voiceovers – provided.	19/12/17	SJ	Closed
16/6	Steering Group to review latest product resource sheet provided and discuss with their workstream representatives to provide additional resources on products that are light on resources.	22/03/18	SG	Closed
17/3	JB/FF to discuss with WS3 and present revised activity plan highlighting the impact of including additional pre-consultation stakeholder engagement for the SGAM models.	26/04/18	JB/FF	Closed
17/5	SJ to request WS5 to circulate TOR for participation in WS2 product development with their mailings lists to spread the message more widely.	26/04/18	SJ	Closed
17/6	Steering Group members to propose consultancies that we can approach with an EOI outside the CEP framework for the CBA work.	26/04/18	Steering Group	Closed
17/7	JB/RB to share a list of CEP consultancies and other relevant consultancies from Ofgem's panel with the Steering Group.	26/04/18	JB/RB	Closed
17/8	JB/FF to JB/FF to progress EOI to CEP with selected consultancies.	26/04/18	JB/FF	Closed
17/9	Steering Group members to talk to their teams and reiterate the need to progress delivery of products for all workstreams.	26/04/18	Steering Group	Closed



The Voice of the Networks

#	Closed Actions	Created	Person	Status
17/10	AF to invite members of Cyber Security Team at BEIS to next meeting for discussion on how their input can be linked into ONP.	26/04/18	AF	Closed
15/3	ENA to speak to Power Responsive regarding their Investor event and share invite list. Ongoing engagement with investors.	22/2/18	ENA	Closed
17/1	JB and SJ to have a meeting with Rhiannon Marsh to discuss and agree coordination on comms with Power Responsive	26/04/18	JB/SJ	Closed
17/4	LvR to provide more details on the CFF consultation timeline as and when it becomes available	26/04/18	LvR	Closed
18/1	JB to send thank you note to WS4 for their effort and involvement with CFF.	06/06/18	JB	Closed
18/2	LvR to discuss resources to support ONP Impact Assessment work in WS3 P4 and advise JB.	06/06/18	LvR	Closed
18/3	JL to send tertiary winding letter to all and JB to raise for discussion at next ENFG call.	06/06/18	JL/JB	Closed
18/4	RB to send TH link for G5 work on harmonics.	06/06/18	RB	Closed

#	Outstanding Actions	Created	Person	Status
16/9	LvR, TH and RB to talk about possible EU representatives to sit on the AG for EU input.	22/03/18	LvR/TH/ RB	Ongoing
17/2	SJ/WG to put together proposal for a dedicated ONP website for Steering Group ahead of the meeting on 6th June.	26/04/18	SJ/WG	Ongoing
19/1	To request further Open Network references in future ESO Future Plan updates	25/06/18	JL	Open
19/2	Consider input to WS3 Impact Assessment criteria (P4)	25/06/18	AF	Open
19/3	Arrange meeting with LvR, Ofgem RII02 team and ONP	25/06/18	JB/LvR	Open
19/4	Distribute paper on data initiatives	25/06/18	JB	Open
19/5	JB/FF to arrange uploading previous Steering Group meeting documents on Huddle.	25/06/18	JB/FF	Open





## 1. Introduction

FUSION is a flagship innovation proposal submitted by SP Energy Networks (SPEN) as part of the 2017 RIIO-ED1 Network Innovation Competition (NIC) process.

FUSION aims to demonstrate a solution in which flexibility is harnessed to manage networks in a known area of constraint, through trialling an alternative market structure that is presently being demonstrated elsewhere in Europe.

The FUSION proposal will generate new learnings via proportional trialling.

Namely;

- How to establish and sustain a local flexibility market within the existing regulatory framework;
- Seek to test the implementation of a neutral market facilitator based on an augmented set of USEF-based rules and market framework;
- How the role of Aggregator might work as an alternative to a DNO-led market solution.

The learning from the FUSION trial will inform and compliment to the current studies under Open Networks. It will offer substantial insights into what will and will not be needed in a commercialised flexibility market and how to coordinate the Transmission/ Distribution interactions. This learning is required now if it is to feed into the RIIO-ED2 business plans.

### Purpose of this document

This document reviews and details how SPEN, in its capacity as the leading licensee, has fulfilled the evaluation criteria set out in:

- the Network Innovation Competition Governance document<sup>1</sup> and
- the Funding Condition established as part of the Project Direction<sup>2</sup> by the Authority in January, 2018.

This compliance document should be read in conjunction with the following documents available publically on the Ofgem website;

- the FUSION re-submission documents<sup>3</sup>,
- FUSION Project Direction<sup>4</sup>,
- Electricity Network Innovation Competition (2017) Report<sup>5</sup> and
- Network Innovation Competition Funding Decision<sup>6</sup>

This compliance document will also reference the 'joint compliance document'<sup>7</sup> produced in collaboration with;

- Western Power Distribution (WPD, the leading licensee of the proposal of EFFS),

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<sup>1</sup> Version 3.0, published in June 2017, <https://www.ofgem.gov.uk/publications-and-updates/version-30-network-innovation-competition-governance-documents>

<sup>2</sup> <https://www.ofgem.gov.uk/network-regulation-riio-model/network-innovation/electricity-network-innovation-competition/sp-energy-networks>

<sup>3</sup> <https://www.ofgem.gov.uk/publications-and-updates/electricity-nic-submission-sp-energy-networks-fusion>

<sup>4</sup> Project Direction ref: SPD / Fusion / 16 January 2018

<sup>5</sup> <https://www.ofgem.gov.uk/network-regulation-riio-model/current-network-price-controls-riio-1/network-innovation/electricity-network-innovation-competition?page=1#block-views-publications-and-updates-block>

<sup>6</sup> [https://www.ofgem.gov.uk/system/files/docs/2017/11/decision\\_on\\_nic\\_funding\\_2017.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/11/decision_on_nic_funding_2017.pdf)

<sup>7</sup> NIC 2017: Compliance Document (June 2018)



- Scottish Southern Energy Networks (SSEN, the leading licensee of the proposal TRANSITION) and
- SP Energy Networks (SPEN, the leading licensee of the proposal FUSION)

The joint compliance document has been submitted to Open Networks Steering Board as evidence to demonstrate that endeavours have been made to identify and avoid unnecessary duplication across the three proposals (collectively referred to as TEF).

The meaningful collaboration achieved between the TEF proposals will provide a coherent approach to the licensees' ongoing transition to become Distribution System Operators (DSO's) and to provide and maintain a secure, economical and low carbon network for our customers.

SPEN has consistently taken a proactive role in promoting a commitment to collaboration both within and outside of the electricity distribution sector.



This approach ensures both efficient delivery and complementary knowledge sharing, through;

- Innovation project delivery being safeguarded by clear ownership, and
- Knowledge gained from these Projects being made available to all parties who have an interest in the future development of flexibility markets.

### Context of FUSION re-submission

The 2017 Electricity Network Innovation Competition started from the submission of a high-level description of the proposal to the Authority, as part of the Initial Screening Process (ISP), where FUSION was considered to be eligible and appropriate to pass through to the second stage; Full Submission Development.

A further-developed and more detailed FUSION proposal, together with a clear business case and a full costing spreadsheet, was presented to the Authority in August, 2017.

The Authority, the Electricity NIC Expert Panel and an Authority-appointed consultant evaluated the proposal against the criteria set out in the NIC Governance, namely:

- *Accelerates the development of a low carbon energy sector and/or delivers environmental benefits whilst having the potential to deliver net financial benefits to future and/or existing customers*
- *Provides value for money to electricity customers*
- *Generates knowledge that can be shared amongst all relevant Network Licensees*
- *Is innovative (i.e. not business as usual) and has an unproven business case where the innovation risk warrants a limited development and/or demonstration project to demonstrate its effectiveness*
- *Involvement of other project partners and external funding*
- *Relevance and timing*
- *Demonstration of a robust methodology and that the Project is ready to implement*

During the evaluation process, the FUSION proposal team was given the opportunity to clarify and answer a number of questions.

Studies supported by Ofgem, BEIS and the wider industry estimate that the benefits for GB customers of a smart energy system could amount to £17-40bn by 2050. The FUSION proposal confirmed that the development of a GB-wide DSO open market arrangement would yield benefits of around £236 million (in NPV terms) by 2050.

The FUSION team was invited to meet twice with the Authority, Expert Panel and their consultants. It was clear that the Authority and the Expert Panel had an expectation for FUSION to demonstrate closer collaboration with similar DSO-related proposals in order to maximise the innovation value and protect the customer's investment.

The FUSION team acted on this expectation with great initiative and effort by liaising with other licensees and studying the high-level proposals of TRANSITION and EFFS, which were publically available on Ofgem website.

At this time, the FUSION team made the reasonable assumptions that;

- products or learnings from one DSO-related project should (where possible) be used in another project, and
- all three projects should form one consortium under Open Networks to facilitate knowledge sharing.



With these assumptions on direct collaboration in mind, the FUSION team made a re-submission in October 2017, with a significant NIC funding reduction of £1.7m.

SPEN's initiative and proactive identification of collaboration savings was positively accepted and recognised by the Panel under the Criteria of 'Value for Money'<sup>8</sup>, and was formally documented by the Authority:

***SPEN found efficiencies of approximately £1.5 million based on assumptions regarding cooperation with the Transition and EFFT Projects<sup>9</sup>.***

### **Post-Funding Decision Developments**

Ofgem published their funding decision document<sup>10</sup>, in December 2017.

Following that publication, SPEN have continued to engage constructively with other licensees in an effort to work alongside them to explore and evaluate the validity of the collaboration opportunities that SPEN had pro-actively identified across the TEF proposals, and encourage the other licensees to making similar commitments to sensible and achievable reductions in the interest of the customer.

The key focus of activity during that period focussed on:

- a) Objectively evaluating the robustness of SPEN's original collaborative savings estimates;
- b) Developing the original TEF proposals based on a more thorough understanding of the potential and limitations for collaboration and its limitations.

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<sup>8</sup> <https://www.ofgem.gov.uk/network-regulation-riio-model/current-network-price-controls-riio-1/network-innovation/electricity-network-innovation-competition?page=1#block-views-publications-and-updates-block>

<sup>9</sup> [https://www.ofgem.gov.uk/system/files/docs/2017/11/decision\\_on\\_nic\\_funding\\_2017.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/11/decision_on_nic_funding_2017.pdf)

<sup>10</sup> [https://www.ofgem.gov.uk/system/files/docs/2017/11/decision\\_on\\_nic\\_funding\\_2017.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/11/decision_on_nic_funding_2017.pdf)

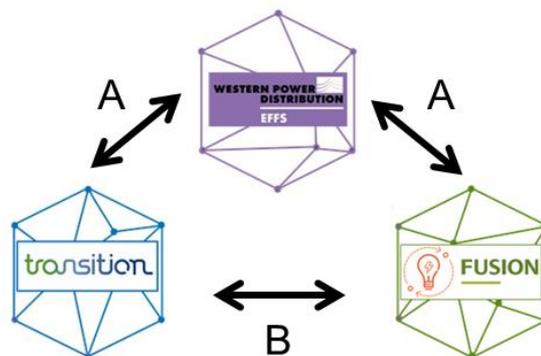


The steps taken (by SPEN and the wider TEF consortium of licensees) since December 2017 include the following<sup>11</sup>:

- Face-to-face meeting with senior management of (SSE & WPD) before and after the Low Carbon Network (LCN) conference.
- Weekly teleconferences with project delivery team.
- Regular face-to-face workshops with TRANSITION & EFFS project teams to identify potential areas for collaboration.
- Attendance and membership of the Open Networks initiative.
- Ofgem briefing and update in March and May respectively.

In addition to the above steps, SPEN also contracted EA technology<sup>12</sup> to undertake a separate modelling exercise to independently evaluate whether or not FUSION would in fact offer complementary value to what is already planned under ON. At the time of writing, two modelling workshops have been completed. Positive comments have been expressed by all stakeholders and by the Authority in both events

Ultimately, we are promoting the concept that the 3 projects should be integrated into a coherent strategy to advance the transition toward the DSO vision and deliver maximum benefit to the customer through avoiding unnecessary duplication.



Ref	Co-ordination Objective	Action Proposed
A	Ensure <b>compatibility</b> of EFFS output with TRANSITION & FUSION	TRANSITION & FUSION to collaborate in a <b>joint-tendering exercise</b> for forecasting tool
B	<b>Eliminate duplication</b> between TRANSITION & FUSION	<p><b>Prior to</b> completion of ON-PRJ;</p> <ul style="list-style-type: none"> <li>FUSION team actively engaged with: <ul style="list-style-type: none"> <li>▪ ON-PRJ (particularly WS3),</li> <li>▪ EA Technologies, <ul style="list-style-type: none"> <li>○ Knowledge exchange</li> <li>○ FUSION learnings to directly inform ON-PRJ</li> </ul> </li> </ul> </li> </ul> <p><b>Post</b> completion of ON-PRJ;</p> <ul style="list-style-type: none"> <li>▪ FUSION &amp; TRANSITION collaborate on joint stakeholder engagement process.</li> <li>▪ Regular shared learnings from FUSION will enable TRANSITION to elaborate a clearly defined scope prior to implementing live trials.</li> </ul>

<sup>11</sup> A key component of this of this 6-month exercise has been to work closely alongside the other DNO's in order to help them to recognise the robust methodology employed in the quantification of our collaboration savings and to encourage them to commit to achieving similar savings, based on the validity of the assumptions used.

In the spirit of collaboration and adding value to the customer, the cost of our contribution to this 6-month cost-saving exercise has been absorbed by SPEN.

<sup>12</sup> EA Technology is the principle partner for Open Networks. Their extensive experience and expertise in modelling Smart Grid Architecture (SGAM) makes them an ideal consultant to provide impartial expert judgement and leverage added value across FUSION and Open Networks.



A key output from the work completed since December 2017 is the recognition that the assumptions used in the identification of the efficiencies in SPEN's October budget submission were sensible, and that those savings can be categorised as follows:

August Budget Submission	£7,743,893
October Budget Submission	£5,973,963
<b>Total Cost Reduction/Efficiency</b>	<b>£1,769,930</b>

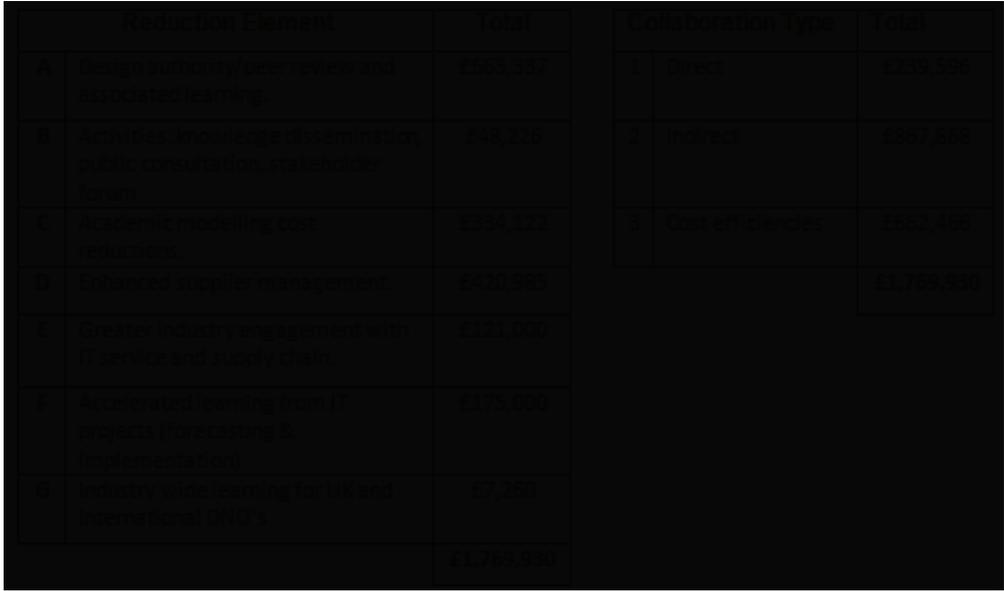
<b>Reduction Element</b>		<b>Total</b>
<b>A</b>	Design authority/peer review and associated learning.	████████
<b>B</b>	Activities: knowledge dissemination, public consultation, stakeholder forum	████████
<b>C</b>	Academic modelling cost reductions.	████████
<b>D</b>	Enhanced supplier management.	████████
<b>E</b>	Greater industry engagement with IT service and supply chain.	████████
<b>F</b>	Accelerated learning from IT projects (forecasting & implementation)	████████
<b>G</b>	Industry wide learning for UK and International DNO's	████████
		<b>£1,769,930</b>

<b>Collaboration Type</b>		<b>Total</b>
1	Direct	████████
2	Indirect	████████
3	Cost efficiencies	████████
		<b>£1,769,930</b>



## 2. Funding Condition Compliance Matrix

The following table is designed to clearly demonstrate how SPEN has fully satisfied each of the eight criterion listed within condition 2(i) of the Project Direction<sup>13</sup>.

Funding Condition		
Ref	Requirement	How have SPEN satisfied requirement?
A	Project Budget	An <b>updated project budget</b> for FUSION has been produced and will accompany this submission as a stand-alone document.
	This should include (where appropriate):  <b>i) the cost of complying</b> with this condition. <b>ii) the reduced costs</b> from those identified during the Full Submission process as a result of identifying and removing areas of unnecessary duplication between TRANSITION, FUSION and EFFS.	The updated budget clearly details both: <ul style="list-style-type: none"> <li>• the <b>additional</b> scope (and commensurate <b>cost increases</b>) associated with complying with the funding conditions</li> <li>• the <b>reduced</b> scope (and commensurate <b>cost reductions</b>) resulting from TEF collaboration (including the avoidance of unnecessary duplication).</li> </ul>
	It must be sufficiently <b>justified</b>	The FUSION Project Budget has been reduced by £1.8M (NET) since SPEN's initial submission to Ofgem. All savings have been committed to pre-stage gate. A high-level <b>justification</b> of how these savings have been achieved is provided below.  

<sup>13</sup> Project Direction ref: SPD / Fusion / 16 January 2018



A **detailed breakdown** of the reduction to the budget is available upon request.  
A screenshot is provided below.



The detailed breakdown provides visibility of :

- **Where** the FUSION budget has;
  - increased
  - decreased
- **What** the NET change is to;
  - the overall FUSION project budget
  - the budget for each FUSION partner
  - the budget for each FUSION WP (& their constituent deliverables)
- **How** budget reduction will be realised.
  - All budget reductions have been categorised according to;
    - The cost reduction mechanism that they employ (Seven groups [A-G])
    - The type of collaboration that they leverage (Three groups [1-3])



<p><b>B</b></p>	<p>Trial:</p> <ul style="list-style-type: none"> <li>• def's</li> <li>• req's</li> </ul>	<p><b>Trial definitions and requirements</b> for all three projects in order to ensure delivery of <b>complementary learnings</b>.</p>	<p><b>Definitions and requirements:</b>  Appendix 9 of the Compliance Document<sup>14</sup> defines the following aspects of each the TEF project trials;</p> <ol style="list-style-type: none"> <li>1. The <b>market model</b> to be trialled</li> <li>2. The <b>location</b> of the trial</li> <li>3. The anticipated <b>learning outcomes</b></li> </ol> <p>By clearly defining the similarities and differences that exist between the TEF project trials, we have been able to;</p> <ul style="list-style-type: none"> <li>• avoid duplication</li> <li>• identify the potential for complementary learnings</li> </ul> <p><b>Complementary learnings:</b>  In order to ensure that the trials from the 3 TEF projects deliver complementary learnings, SPEN have proposed a collaborative approach to the design and evaluation of the FUSION trials.</p> <p>Originally, the design and evaluation of the FUSION trials were to be delivered exclusively through SPEN and DNV-GL. In our resubmission, SPEN have intentionally leveraged the potential for TEF partners to contribute directly to the design of our trials, in order to both:</p> <ol style="list-style-type: none"> <li>a. maximise the complementary learnings to all TEF projects, and</li> <li>b. avoid unnecessary duplication.</li> </ol> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
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<sup>14</sup> NIC 2017: Compliance Document (June 2018)



C

Market models

Definition of **requirements** for the three projects relating to the use of **complementary market models** for accessing flexibility.

**Market models proposed to be trialled:**

Open Networks Model		To what extent will each project complement the ON market models?		
		TRANSITION	EFFS	FUSION
A	DSO co-ordinates	TRANSITION will trial up to 3 of the ON models		
B	Joint procurement & dispatch		Trialled	
C	Price driven flexibility			
D	NETSO co-ordinates			
E	Flexibility co-ordinators			
X	USEF framework	N/A	N/A	Trialled

Comment	TRANSITION	EFFS	FUSION
	TRANSITION will trial up to 3 different market models in different trial areas.	EFFS is most likely to use World B, but would aim to ensure that the system was designed so that the market model of DSO coordinated dispatch could be supported.	FUSION is committed to operating according to the USEF framework, which is supplementary to the ON models. The USEF-compliant platform will be able to accommodate all of the ON Models

**What functional requirements have FUSION defined?**

- FUSION is proposing to procure a forecasting tool based on the algorithms developed by EFFS, which will in turn have to integrate with both SPEN legacy IT systems, and FUSION's wider market platform.
- FUSION therefore require that the EFFS forecasting algorithms are compatible with the functional requirements identified by the USEF SGAM\* Model.

**What functional requirements have been imposed upon FUSION by the other projects?**

- SPEN propose that, in order to avoid unnecessary duplication, TRANSITION adopt the FUSION Market Platform
- TRANSITION would therefore require that FUSION's USEF-compliant Market Platform is compatible with the functional requirements identified in the SGAM\* Models associated with ON Model(s) to be trialled by TRANSITION.

**\*SGAM Models:**

EA Technology is providing detailed SGAM modelling of:

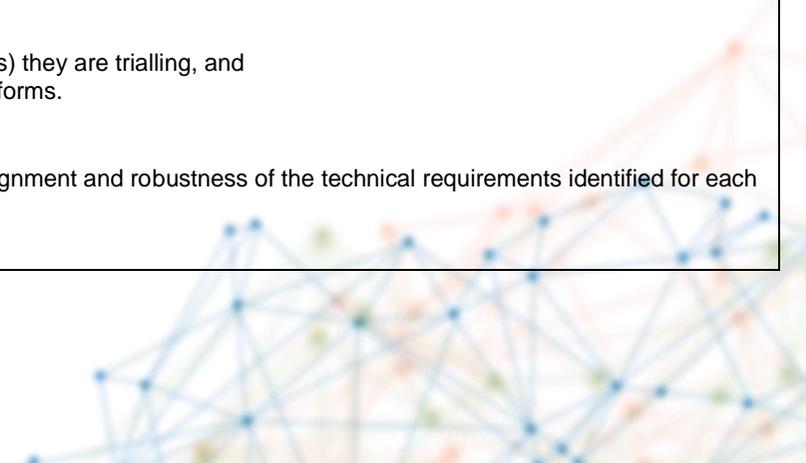
1. ON market models
2. USEF market model

The above SGAM models will allow the DNO's to;

- visualise the inputs/outputs associated with the Market Model(s) they are trialling, and
- define the functional requirements their respective Market Platforms.

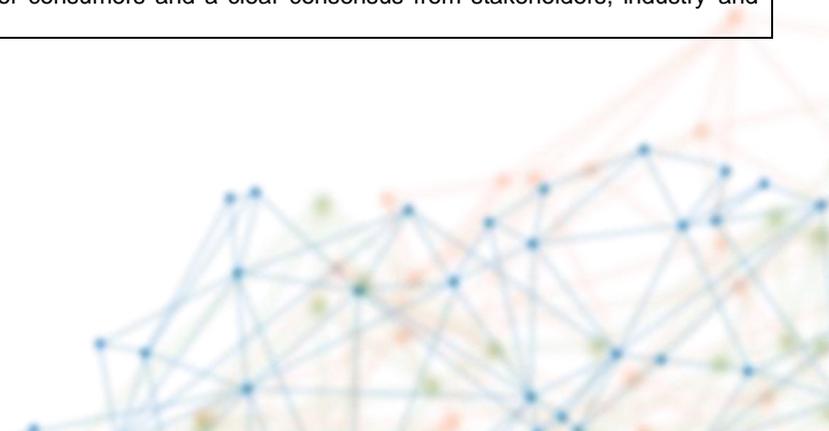
**Stage gate:**

Collaborative reviews during the design stage ensure that the alignment and robustness of the technical requirements identified for each project are periodically re-validated.



D	Stage Gate	<p><b>Stage gates</b> that will allow the;</p>	<p>All three TEF projects have agreed to pause for <b>stage-gates</b> prior to commencing their respective <b>deployment phases</b>. A <b>Gantt chart</b>, showing the representative timing of the proposed stage-gates is available in section 3.2 of the Joint Compliance Document<sup>15</sup>.</p> <div data-bbox="846 256 2000 743" data-label="Figure"> <p><b>T.E.F. Project Summary of activities</b></p> <p>Month following project commencement:</p> <table border="1"> <thead> <tr> <th>ACTIVITY</th> <th>0</th> <th>1 - 12</th> <th>13 - 24</th> <th>25 - 36</th> <th>37 - 48</th> <th>49 - 60</th> </tr> </thead> <tbody> <tr><td>Ofgem sign off of collaborative work (ALL)</td><td>█</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Development of T.E.F. DSO function requirements</td><td>█</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Joint T.E.F. review of requirements</td><td></td><td>█</td><td></td><td></td><td></td><td></td></tr> <tr><td>EFFS tender for forecasting (Academic work with algorithms)</td><td></td><td>█</td><td></td><td></td><td></td><td></td></tr> <tr><td>EFFS forecasting work (Academic work generating algorithms)</td><td></td><td>█</td><td></td><td></td><td></td><td></td></tr> <tr><td>EFFS Gateway review 1</td><td></td><td>█</td><td></td><td></td><td></td><td></td></tr> <tr><td>Implement FUSION design / development</td><td></td><td></td><td>█</td><td></td><td></td><td></td></tr> <tr><td>Implement TRANSITION design / development</td><td></td><td></td><td>█</td><td></td><td></td><td></td></tr> <tr><td>EFFS development (Forecasting related)</td><td></td><td></td><td>█</td><td></td><td></td><td></td></tr> <tr><td>EFFS development (Non forecasting related)</td><td></td><td></td><td>█</td><td></td><td></td><td></td></tr> <tr><td><b>Common T.E.F. Stage Gate</b></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>EFFS Gateway review 2</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Trials software procurement - TRANSITION</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Trials software procurement - FUSION</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Develop TRANSITION trials platform</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>FUSION trial design and set up</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Run Trials - FUSION</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Run Trials - TRANSITION</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>Run Trials - EFFS</td><td></td><td></td><td></td><td>█</td><td></td><td></td></tr> <tr><td>EFFS Closedown</td><td></td><td></td><td></td><td></td><td>█</td><td></td></tr> <tr><td>Collaborative Dissemination Events</td><td></td><td></td><td></td><td></td><td>█</td><td></td></tr> <tr><td>TRANSITION &amp; FUSION Closedown</td><td></td><td></td><td></td><td></td><td></td><td>█</td></tr> </tbody> </table> </div>	ACTIVITY	0	1 - 12	13 - 24	25 - 36	37 - 48	49 - 60	Ofgem sign off of collaborative work (ALL)	█						Development of T.E.F. DSO function requirements	█						Joint T.E.F. review of requirements		█					EFFS tender for forecasting (Academic work with algorithms)		█					EFFS forecasting work (Academic work generating algorithms)		█					EFFS Gateway review 1		█					Implement FUSION design / development			█				Implement TRANSITION design / development			█				EFFS development (Forecasting related)			█				EFFS development (Non forecasting related)			█				<b>Common T.E.F. Stage Gate</b>							EFFS Gateway review 2				█			Trials software procurement - TRANSITION				█			Trials software procurement - FUSION				█			Develop TRANSITION trials platform				█			FUSION trial design and set up				█			Run Trials - FUSION				█			Run Trials - TRANSITION				█			Run Trials - EFFS				█			EFFS Closedown					█		Collaborative Dissemination Events					█		TRANSITION & FUSION Closedown						█
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		<p>1. <b>continued validity</b> of the proposed trials to be tested in terms of delivering <b>beneficial learning</b> for network customers against:</p> <ul style="list-style-type: none"> <li>- the wider industry,</li> <li>- policy and</li> <li>- regulatory landscape</li> </ul>	<p>TEF projects will share a common Stage Gate, which will facilitate;</p> <ul style="list-style-type: none"> <li>- a peer review of developed technical specifications and will</li> <li>- the evaluation of the continued validity of <b>learning outcomes</b> from each project to ensure that each project is continuing to deliver benefit to the customer.</li> </ul> <p>Following the Common Stage Gate, the projects will produce a single Stage Gate Report, which will include an evaluation of the validity of their proposed trials and their associated learning outcomes. This report will be submitted for peer review and for approval by the Authority.</p> <p>In order to facilitate Ofgem’s evaluation of the continued validity of the proposed trials; TEF projects will provide the specific evidence as part of their stage gate report. The criteria for the evidence to be provided is outlined in Section 3.2 of the Joint Compliance Document , under the heading ‘Stage Gate Report’.</p> <p>TEF projects will not proceed unless there are clear benefits for consumers and a clear consensus from stakeholders, industry and regulators.</p>																																																																																																																																																																	

<sup>15</sup> NIC 2017: Compliance Document (June 2018)



<p>2. <b>alignment</b> of the <b>phasing</b> of the <b>projects</b> such that all three (TRANSITION, FUSION and EFFS) have successfully concluded the <b>Design Stage</b> in a <b>complementary</b> manner;</p>	<p><b>Synergies across TEF projects:</b> As part of the TEF collaboration exercise, the following synergies were identified between FUSION and the other TEF projects:</p> <p><u>EFFS and FUSION.</u></p> <ul style="list-style-type: none"> <li>● EFFS plans to develop algorithms to create a new type of forecasting tool for determining operational requirements</li> <li>● FUSION plans to procure a similar forecasting tool to facilitate its USEF trials.</li> <li>● An opportunity exists for FUSION to influence and subsequently specify the algorithms developed as part of EFFS forecasting tool in order to reduce the cost of procuring their own forecasting tool for FUSION.</li> </ul> <p><u>TRANSITION and FUSION.</u></p> <ul style="list-style-type: none"> <li>● FUSION plans to procure a Market Platform to trade flexibility (using the USEF Model).</li> <li>● TRANSITION also plans to procure a Market Platform to trade flexibility (using one or more of the ON Models).</li> </ul> <p>An opportunity exists for TRANSITION to adopt the same platform developed by FUSION.</p> <p><b>Phasing alignment:</b></p> <p>- Given the potential for FUSION and TRANSITION to benefit from the outcomes from EFFS, their design stages were phased to commence after the commencement of the EFFS forecasting tool development work.</p> <p><b>Maximising design-stage complementarity:</b> The following pre-deployment stage-gates were agreed in order to maximise the potential for design-stages to conclude in a complementary manner;</p> <p><u>First Stage Gate (EFFS Gateway review 1):</u></p> <ul style="list-style-type: none"> <li>● Scheduled in the interval between; <ul style="list-style-type: none"> <li>- EFFS completing the academic development of their forecasting algorithms, and</li> <li>- EFFS commencing on the development of their forecasting tool.</li> </ul> </li> <li>● At this time FUSION will still be in the first half of their Design Stage</li> <li>● This stage gate review will provide an opportunity for the complementarity of the EFFS and FUSION projects to be evaluated and refined prior to EFFS commencing the development of their forecasting tool.</li> </ul> <p><u>Second Stage Gate (Common TEF Stage Gate):</u></p> <ul style="list-style-type: none"> <li>● Scheduled in the interval between; <ul style="list-style-type: none"> <li>- FUSION completing the design stage, and</li> <li>- FUSION commencing deployment stage.</li> </ul> </li> <li>● This pause prior to FUSION or TRANSITION procuring their Market Platforms will provide an opportunity for the complementarity of the EFFS and FUSION projects to be evaluated and refined prior to EFFS commencing the development of their forecasting tool</li> </ul> <p>It should be noted that the combined, common Stage Gate, does not supersede the additional project stage gates and review points which were included in the original project submissions.</p>
<p>Any one project will not commence the deployment stage without prior approval of the Authority.</p>	<p>The common stage gate ensures that FUSION will <b>not</b> commence the deployment stage without the prior approval from the Authority.</p>



<b>E</b>	Dissem' Plan	<p>A coordinated <b>dissemination plan</b> so that all interested stakeholders are informed of;</p> <ul style="list-style-type: none"> <li>- each of the <b>Project's</b>, and</li> <li>- each of the other projects' <b>outputs and learning</b></li> </ul> <p>in a coordinated fashion.</p>	<p>Section 3.3 of the Joint Compliance Document<sup>16</sup> provides <b>detailed plans</b> for the co-ordinated dissemination of TEF projects and their outputs.</p> <p>The plans articulate the DNO's commitments to <b>co-ordinate</b> their <b>dissemination activities</b>. These commitments include:</p> <ul style="list-style-type: none"> <li>- Unified branding</li> <li>- Website inter-linking</li> <li>- Co-ordinated attendance at stakeholder, consultation &amp; dissemination events</li> <li>- Common language (in line with Open Networks Glossary)</li> </ul> <p>The ENA is recognised as a key representative of a significant number of stakeholders. One of the key aims of the dissemination plan is therefore to focus efforts on engaging in a co-ordinated manner with the ENA, and in particular the <b>Open Networks Working Group</b>.</p>
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<sup>16</sup> NIC 2017: Compliance Document (June 2018)



<b>F</b>	Co-op' Plan	An <b>explanation</b> of the <b>cooperation activities</b> for the three projects. This will identify:	Section 3 of the Joint Compliance Document <sup>17</sup> provides a detailed explanation of the proposed and ongoing co-operation activities of the three companies.
		i) how all of the projects will <b>interact</b> with each other to deliver a <b>complementary</b> and <b>coordinated</b> set of <b>learning outcomes</b> to maximise benefits to consumers,	<p><b>Project interaction:</b></p> <ul style="list-style-type: none"> <li>- This interaction is explained and defined in the <b>project governance structure</b>, which is found in section 3.1 of the Compliance Document</li> </ul> <div style="text-align: center;"> </div> <p>Figure 3.1: T.E.F. governance arrangements</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>- The stage-gate process will ensure <b>complementary alignment</b> of learning objectives across the 3 projects (and across the wider ON Project)</li> <li>- The stage gate peer review process will ensure that learning outcomes are <b>regularly evaluated</b>, to ensure that they offer <b>maximum benefit</b> to the customer</li> </ul>

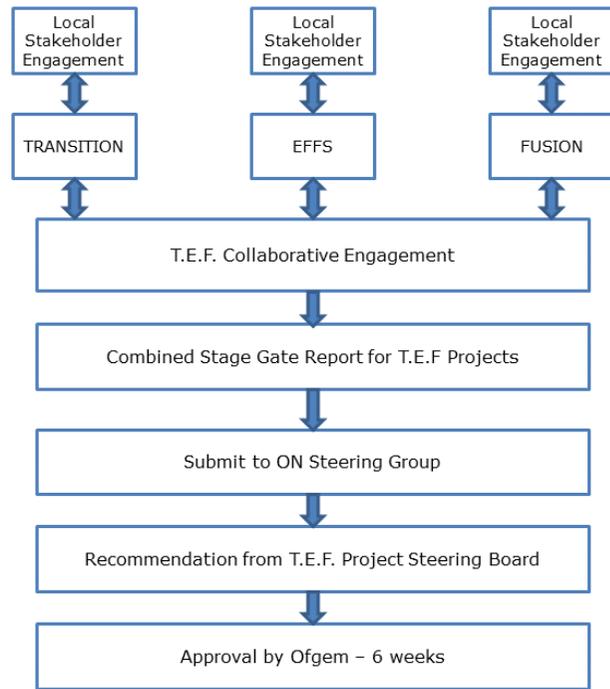
<sup>17</sup> NIC 2017: Compliance Document (June 2018)



ii) how **peer review** of outputs will work,

**Peer review:**

- the peer review process is explained in section 3.2 of the Joint Compliance Document<sup>18</sup>, and in Appendix 4 that accompanies that document.



- Firstly TEF DNO's will review one another
- A common stage gate report will then be produced
- This will be passed on to ON for further peer review

Finally, once these intermediate stages have been approved, the outputs of the peer review process will be passed on to Ofgem for approval.

iii) **who** will be attending project meetings, and

The above **project governance structure** graphic shows the proposed attendance at project meetings

<sup>18</sup> NIC 2017: Compliance Document (June 2018)



		<p>iv) how the various <b>work packages</b> will <b>align</b> with and <b>complement each other</b>, without unnecessarily duplicating, the <b>Open Networks activities</b>, including taking account of <b>wider stakeholder views</b>.</p>	<p><b>Alignment within TEF:</b></p> <ul style="list-style-type: none"> <li>- WP's are phased to allow for synergies to be exploited through the adoption of relevant sequential learnings, from one project to another.</li> <li>- For further detail, please refer to the responses given to Condition D above.</li> </ul> <p>In order to leverage maximum value across the TEF projects, FUSION's WP's have been phased to:</p> <ul style="list-style-type: none"> <li>- allow SPEN to provide early input into the EFFS project, with a view to FUSION ultimately adopting the forecasting algorithms and learnings developed through EFFS.</li> <li>- invite early co-ordination with TRANSITION during FUSION's development of the Market Platform, with a view to TRANSITION ultimately adopting the Market Platform from FUSION and thus avoiding unnecessary duplication.</li> </ul> <p><b>Alignment with ON Activities:</b></p> <ul style="list-style-type: none"> <li>- this is ensured through the <b>ENA engagement process</b> (appendix 5 of the collaboration agreement)</li> <li>- regular stakeholder engagement ensures learning objectives are aligned with and complementary to ON, whilst recognising and avoiding the potential for any unnecessary duplication.</li> </ul> <p><b>Integration of Stakeholder Feedback:</b></p> <ul style="list-style-type: none"> <li>- this is ensured through the <b>Stakeholder engagement process</b> (appendix 6 of the collaboration agreement)</li> </ul>
<b>G</b>	Project Deliv'bles	<p><b>Updated set of Project Deliverables</b> to replace those set out in Part 10 (Project Deliverables) below. These should be based on the reviews described above.</p>	<p>See <b>Appendix A:</b> Updated Project Deliverables</p>
<b>H</b>	ONSG Endorse	<p>The <b>endorsement</b> of the <b>Open Networks Steering Group</b> (or equivalent) for the actions taken and the proposed next steps.</p>	<p>See <b>Appendix B:</b> Endorsement from the ONSG</p>



## Appendix A: Updated Project Deliverables

Ref	Project Deliverable	Deadline	Evidence	NIC funding request (100%)
N/A	Ofgem full approval	30/07/18	Project Direction	0%
1	Report on flexibility quantification in East Fife.	04/12/19	1. Report on quantification of the flexibility market value in E Fife, including robust assessments across voltage levels, market sector, industry type.	14%
2	Public consultation on USEF.	29/11/19	1. Deliver the consultation document on the basis of workshops. 2. Hold an open consultation for a three month duration. 3. Report on consultation responses and analysis. 4. Report on associated changes to USEF implementation plan.	5%
3	USEF implementation plan.	02/04/20	1. FUSION USEF implementation. 2. Report on GB specific reference implementation of USEF.	16%
4	USEF process implementation.	02/06/20	1. Provide specification of communication and procurement platform. 2. Provide specification of communication protocols between market participants. 3. Provision of template flexibility contracts. 4. Quantify market participant costs for implementing USEF interface compatibility.	37%
5	Implement a minimum of two physical and live trials of commoditised flexibility based on the USEF framework.	03/04/23	1. Identify two trial locations. 2. Identify the required flexibility services available from flexibility providers. 3. Contract for flexibility services. 4. Undertake live trials. 5. Report on the implementation and analysis of USEF trials.	19%
6	Modelling report on commoditised flexibility benefits for the UK (Imperial College London).	28/02/23	1. Academic modelling report on GB flexibility.	5%
7	Open Networks report in coordination with the ENA Open Networks Programme.	28/02/23	1. Report on coordination and hierarchies of control for flexibility, in collaboration with the ENA Open Networks Programme.	4%
<b>Common Project Deliverable</b>				
N/A	Comply with knowledge transfer requirements of the Governance Document.	02/11/23	1. Annual Project Progress Reports which comply with the requirements of the Governance Document. 2. Completed Close Down Report which complies with the requirements of the Governance Document. 3. Evidence of attendance and participation in the Annual Conference as described in the Governance Document.	N/A



## Appendix B: ONSG Endorsement



The Voice of the Networks

### Open Networks Steering Group Meeting

25 Jun 2018

ENA, London

#### Attendees:

Name		Company	Name		Company
Alice Fourrier	AF	BEIS	Tony Hearne	TH	ESBN
Steve Mockford	SM	GTC	Steve Atkins	SA	SSEN
Cara Blockley*	CB	ENWL	Julian Leslie*	JL	NG (SO)
Louise van Rensburg	LvR	Ofgem	Jason Brogden	JB	ENA
Jim Cardwell	JC	NPG	Kyle Murchie**	KM	SSEN
Mark Perry	MP	NG (TO)	Paul Fidler	PF	ENA
Gerard Boyd	GB	SPEN	Farina Farrier	FF	ENA
Sotiris Georgiopoulos	SG	UKPN	Suzanna Jebbitt***	SJ	ENA
Nigel Turvey (Chair)	NT	WPD			

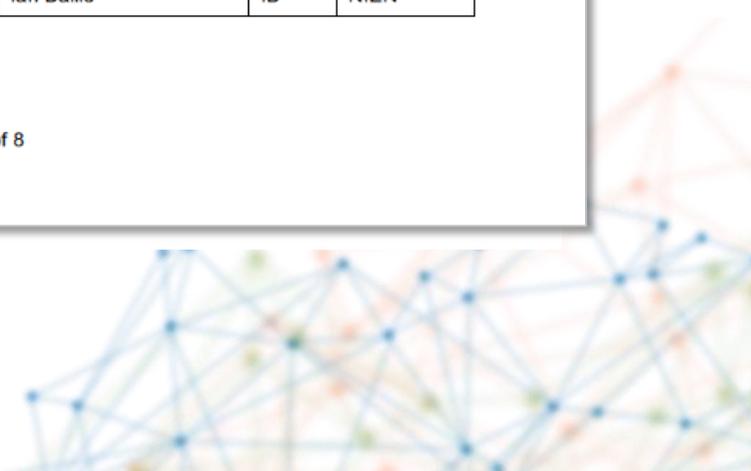
\*Teleconference

\*\* Agenda item 2 only

\*\*\* Agenda item 6 only

#### Apologies:

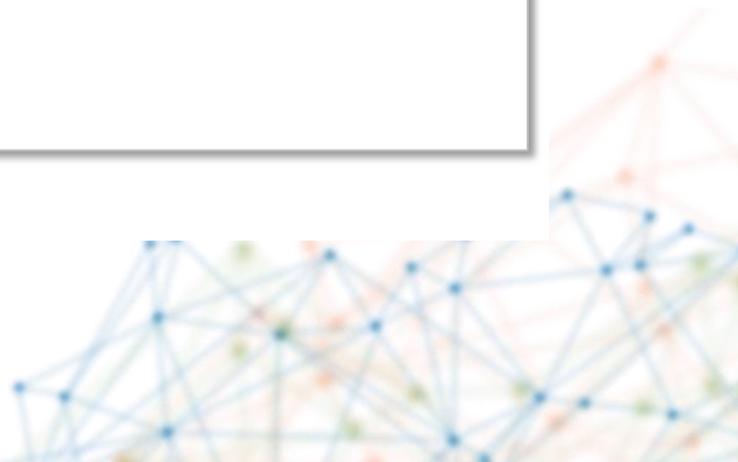
Name		Company	Name		Company
Webster Greenleaf	WG	ENA	Andrew Jenkins	AJ	NPg
Stewart Reid	SR	SSEN	Randolph Brazier	RB	ENA
Cara Blockley	CB	ENWL	Matt White	MW	UKPN
Padraig Lyons	PL	ESBN	David Capper	DC	BEIS
Joseph Donohoe	JD	NG (SO)	Steve Cox	SC	ENWL
Paul McGimpsey	PM	SPEN	Jim McOmish	JM	SPEN
Deborah MacPherson	DM	SPEN (TO)	Ian Bailie	IB	NIEN



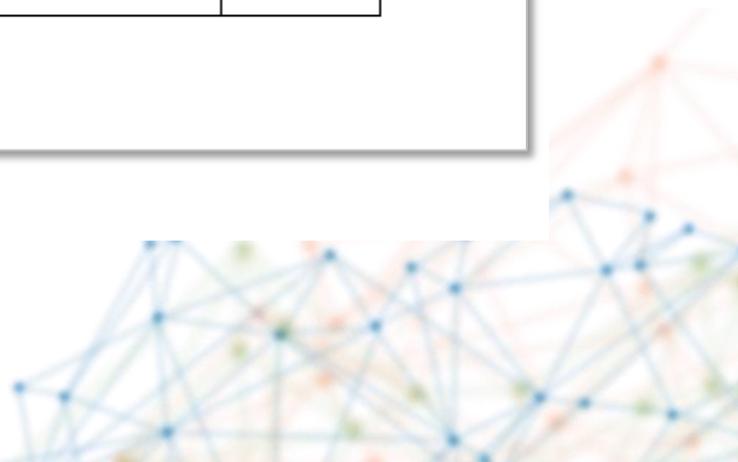
Item	Decision / Action	Responsible
1.	<p><b>Welcome and Introductions</b></p> <p>NT welcomed attendees and introductions were made.</p>	NT
2.	<p><b>Review open actions</b></p> <p>No comments from previous minutes.</p> <p>Closed Actions</p> <ul style="list-style-type: none"> <li>15/3 &amp; 17/1 – Meeting scheduled for 11<sup>th</sup> July with Rhiannon Marsh from Power Responsive to discuss ongoing engagement.</li> <li>17/4 – LvR confirmed date for CFF consultation is w/c 16<sup>th</sup> July.</li> <li>18/1 – A note was sent out to WS4 to recognise their efforts under CFF Taskforces.</li> <li>18/3 – Letter has been sent to all DNOs. JL discussed that it would be useful to discuss principles once all the responses have been received.</li> <li>18/4 – Links shared with TH.</li> <li>18/2 – LvR advised that Edwin Tammis-Williams can be added to the product team for now to flag any structural issues.</li> </ul> <p>Open/Ongoing Actions</p> <ul style="list-style-type: none"> <li>16/9 - Ongoing</li> <li>17/2 – Proposals being presented to SMT today.</li> </ul>	JB
3.	<p><b>T.E.F Collaboration Approval</b></p> <p>KM discussed the slides and highlighted that endorsement from the ON Steering Group is needed before the final T.E.F Collaboration documents can be submitted to Ofgem for approval.</p> <p>Key discussions:</p> <ul style="list-style-type: none"> <li>LvR advised that she will not formally be involved in the endorsement of this document via the ON Steering Group as final approval will be provided Ofgem's final review</li> <li>KM highlighted that the role of the ON Steering Group is to ensure alignment with Open Networks. The T.E.F team will be working with the product teams and workstreams to ensure that the inputs from Open Networks are taken on board and outputs from T.E.F are fed into the products where required, as highlighted in the table in the report and slides. Other NIA projects are also expected to be included.</li> <li>KM discussed that common areas included the consideration of forecasting, a common neutral market facilitator platform (Transition) and the associated algorithms (EFFS).</li> <li>LvR reiterated the significance of alignment with Open Networks and asked whether this work would support all Worlds, including NETSO coordinates. KM explained that the stage gate reviews would allow for consideration of the progress made for the various Worlds and help shape the direction and scope for T.E.F projects. KM highlighted that the Flexibility Driven Pricing model could be layered on any of the other models.</li> <li>In response to a question from LvR, GB discussed that a workshop is planned with EATL to discuss how USEF would align with the Future</li> </ul>	KM



Item	Decision / Action	Responsible
	<p>Worlds that have been developed under ON. JB highlighted that it would be useful to include the least regret elements as part of this to ensure next key steps are aligned.</p> <p>The Steering Group discussed potential topics for 2019, including:</p> <ul style="list-style-type: none"> <li>• Trials; TEF development; NIA projects</li> <li>• Impact Assessment – support to Ofgem/BEIS policy</li> <li>• Progressing DSO Least Regrets requirements to implementation</li> </ul> <p>The Steering Group endorsed the T.E.F Collaboration document for submission to Ofgem.</p>	
4.	<p><b>Update on coordination with ESO initiatives</b></p> <p>JB discussed that the table shared with the Steering Group captures the initiatives under the ESO Forward Plan and the collaboration that is required with the Open Networks project. This will allow greater transparency and consistency across the two areas of work. The Whole Energy System Strategy is key as it cuts across all ON workstreams and discusses the principles and roles in ensuring the transition.</p> <p>Key discussions:</p> <ul style="list-style-type: none"> <li>• SG asked for firmer dates on the Whole Energy System strategy so early engagement can be planned.</li> <li>• JB discussed that a stronger theme for collaboration with Open Networks should be reflected in the ESO Forward Plan updates based on the collaboration identified and interactions that are taking place.</li> <li>• RB is speaking at the next Power Responsive forum to outline some of this collaboration and ON has a stand at the FES event.</li> <li>• The Steering Group requested more interaction with Open Networks as part of this and next years' work under the ESO Forward Plan with more detail on the planned milestones.</li> <li>• Each workstream is to review and work with National Grid representatives to provide input and maintain consistency in the output from ONP &amp; ESO Forward Plan.</li> </ul> <p>Action JL: To request further Open Network references in future ESO Future Plan updates</p>	JB & JL
5.	<p><b>Update from Electricity Regulation Group</b></p> <ul style="list-style-type: none"> <li>• ERG meeting was held on 20<sup>th</sup> June and the key output from the discussion as described in the progress report was the need for Open Networks to collaborate and feed into the RIIO T2 submissions. The actions identified were for more liaison with Ofgem and ERG and feed into assumptions being considered based on the potential future Worlds and their impact assessment.</li> <li>• LvR advised that Ofgem will advise of next steps on the license conditions that have been fed in through WS1.</li> <li>• LvR agreed to follow up with meeting with ONP and RIIO colleagues</li> </ul>	JB

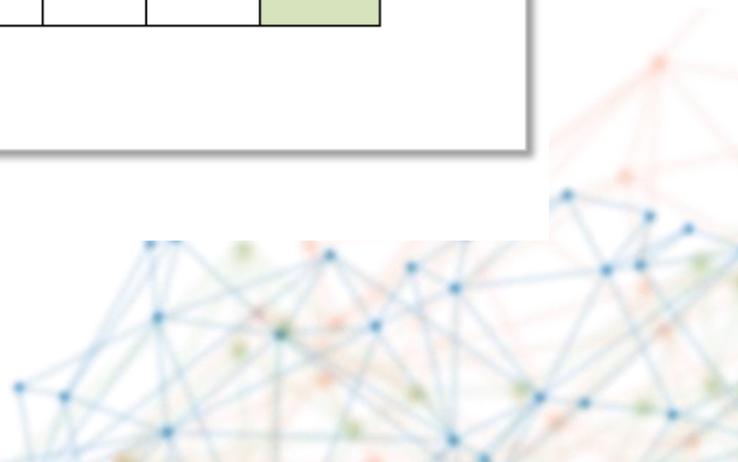


Item	Decision / Action	Responsible
	<ul style="list-style-type: none"> <li>• ERG highlighted the need to review the Smart Systems and Flexibility Plan and the commitments that have been made into it to ensure delivery to specified timescales.</li> <li>• AF highlighted that BEIS are interested in reviewing the assessment criteria and BEIS analysts are happy to provide further input into this. JB discussed that the criteria and other elements of the consultation are being reviewed with WS3 and content is available to all workstream members. AF to consider input and review comments into WS3 P4 development. Below is a link to this material:  <a href="https://my.huddle.net/workspace/38719842/files/#/folder/45830968/list">https://my.huddle.net/workspace/38719842/files/#/folder/45830968/list</a></li> </ul> <p>Action: AF to consider input to WS3 Impact Assessment criteria (P4) Action: LVR JB to arrange meeting with LVR, Ofgem RIIO2 team and ONP</p>	
6.	<p><b>WS5 update</b></p> <ul style="list-style-type: none"> <li>• WS5 will be reviewing the WS3 consultation document next week.</li> <li>• WS5 are currently planning stakeholder briefing events to support this consultation. SJ invited feedback from the Steering Group on what aspects need to be highlighted at the dissemination events. JC discussed that it would be useful to get feedback on the least regret elements from stakeholders to get their views on the work that can be progressed.</li> <li>• LVR highlighted that we need to be clear in the consultation that the output from Open Networks is providing evidence into Ofgem and BEIS but that the policy decision on future worlds sits with Ofgem to avoid any confusion for stakeholders.</li> <li>• SJ discussed that WS5 are considering a research piece to get some more engagement for Open Networks. This is likely to be based on smart cities and the benefits of Open Networks for various community or consumer groups.</li> </ul>	SJ
7.	<p><b>Workstream Updates – key progress, issue and next steps items for SG</b></p> <p>All workstream leads gave an overview of updates covered in the progress report. Key items discussed are captured below.</p> <p>WS1: T-D process (SG)</p> <ul style="list-style-type: none"> <li>• SG discussed that a meeting was recently held with Cathy McClay from National Grid to discuss the issue of DNOs having visibility of the DER contracts with the SO as this impacts DNO operation. Cathy McClay was keen for more data to support ESO demand forecasting. SG highlighted that further discussions would be needed to progress this issue, potentially via the ESO team but it was agreed through Workstream 1 for a more consolidated review of this issue. SG also proposed to that the key issues need to be identified and highlighted in the ON Data paper to Ofgem with an agreed resolution plan. AF highlighted that BEIS were currently looking at data and that this would be a topic for the Smart Systems Forum.</li> </ul> <p>Action: JB Distribute paper on data initiatives</p> <p>WS2: Customer experience (JC)</p>	WS Leads



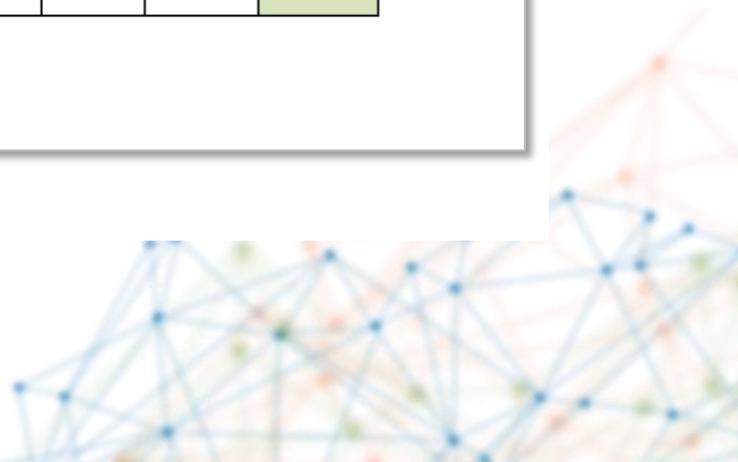
Item	Decision / Action	Responsible
	<ul style="list-style-type: none"> <li>Management of Capacity (P2) has overlap with work being done under CFF. JC has had a discussion with Mohamed Khalid and Jon Parker from Ofgem to discuss how this work would dovetail with work from CFF. Whilst some of the earlier components of the scope under this product do not overlap and can be progressed in the interim, other elements of scope would require a further discussion with Ofgem. This discussion will be held once the CFF consultation is published to see how these elements of work under this product can be more aligned with Ofgem's work. This may affect the scope and timing of this work.</li> </ul> <p>WS3: DNO to DSO Transition (SA)</p> <ul style="list-style-type: none"> <li>WS3 will be reviewing the key sections of the Future Worlds consultation, including the least regret analysis which EATL have now revised and the assessment criteria for the Impact Assessment at the next meeting on 28<sup>th</sup> July.</li> </ul> <p>WS4: Charging</p> <p>Please refer to update below from Paul McGimpsey</p> <p><a href="https://my.huddle.net/workspaca/38719842/files/#/63041590">https://my.huddle.net/workspaca/38719842/files/#/63041590</a></p>	
8.	<p><b>Project Progress Update</b></p> <ul style="list-style-type: none"> <li>JB gave an overview of product progress and discussed that we are closely monitoring the work under the CUSC working Group and the RDPs to manage any impacts on the ON products.</li> <li>JB highlighted the need to get Ofgem input into the Impact Assessment work delivered under WS3 P4 to ensure that the deliverables are fit for purpose and enable decision making. LvR volunteered Edwin Tammas-Williams to provide this input.</li> </ul>	JB
9.	<p><b>AOB</b></p> <ul style="list-style-type: none"> <li>Next meeting: 26<sup>th</sup> July</li> <li>LvR confirmed that the CFF public consultation will be launched in the w/c 16<sup>th</sup> July.</li> <li>Martin Cave has now been announced as Ofgem new chair and 2 new NEDs announced.</li> <li>Huddle is now being used as the file sharing platform for Open Networks.</li> <li>AF suggested that older Steering Group meeting documents should be uploaded to Huddle for ease of access, particularly for new representatives joining the Steering Group.</li> </ul> <p>Action: JB/FF to arrange uploading previous Steering Group meeting documents on Huddle.</p>	NT

#	Closed Actions	Created	Person	Status
13/4	DNOs to notify ENA of any DSO NIC bids being considered for 2019. Done information sharing, but	19/12/17	All	Closed



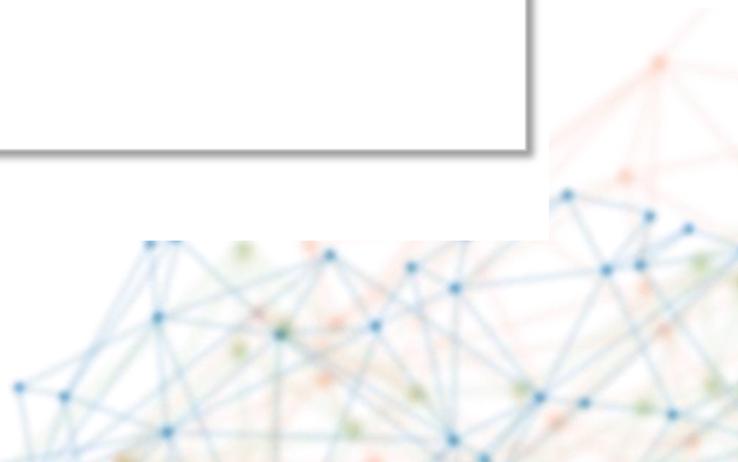
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#	Closed Actions	Created	Person	Status
	nothing specific for DSO. 2019 NIC bids – ENA doing joint call.			
13/5	NIC DNOs to present proposals for use of ONP for collaboration to March Steering Group. Will follow up in April SG meeting after Frank Clifton's presentation today (March SG).	19/12/17	NIC DNOs	Closed
13/6	SG members to respond with resources in template provided. As discussed in agenda item 6 (delivery risk).	19/12/17	All	Superseded
14/3	JD to share details from work being undertaken to identify actions to support the Smart Systems and Flexibility Plan with the Steering Group. Actions identified under SPIA – to be shared by JD.	23/01/18	JD	Closed
14/7	RB to share list of attendees for the FPSA 4 workshop with the Steering Group and any further information.	23/01/18	RB	Closed
15/1	SJ to discuss with Power Responsive linking newsletter updates. Include updates under wider industry update.	22/2/18	SJ	Closed
15/2	Everoze to be invited onto the Advisory Group	22/2/18	ENA	Closed
15/5	JB to respond to EATL with conclusions. On board for the additional 2 models. Has more information.	22/2/18	JB	Closed
10/4	JB & LvR to discuss how to best engage with collaborative NIC projects to support Open Networks for 2018. Had meeting with Ofgem last week. FF has circulated notes. Ofgem to provide feedback.	10/02/17	JB	Closed
14/1	EG to draft ONP stance on Transmission charging and how input is being provided through Ofgem's CFF. <i>Support provided to CFF is clear in PID, but there is a need to get the messaging out more strongly.</i>	23/01/18	EG	Closed
15/4	ENA to consider existing tenders and future markets to make the case to investors to engage; ENA to further discuss nature of the event with Everoze and come back to Steering Group with proposal. AF going to follow up with Will (Ofgem). Discussions being held with BEIS (Ian Payne).	22/2/18	ENA	Closed
16/1	SJ to share WS5 grid with Steering Group.	22/03/18	SJ	Closed
16/2	Everyone in Steering Group to share upcoming events, speaking opportunities, newsletter articles they want shared and consultations with SJ.	22/03/18	All	Closed
16/3	Steering Group to read through consultation slides and send in by Monday (26/03) with feedback for redraft.	22/03/18	All	Closed



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#	Closed Actions	Created	Person	Status
16/4	RB and SR to talk to ERG about models and CBA.	22/03/18	RB/SR	Closed
16/5	ENA to go and brief regulation group. JB to speak next Thursday.	22/03/18	JB	Closed
16/7	JB to send request for contributing resource from stakeholders to deliver WS2 products to Advisory Group, distribution list and DER Connections Steering Group .	22/03/18	JB	Closed
16/8	All Steering Group members to provide comments on NIC collaboration proposal by 5 <sup>th</sup> April. Approval on updated documents will be sought on the 26 <sup>th</sup> of April.	22/03/18	All	Closed
16/10	Add unintended consequences (market or technical) to risk register.	22/03/18	JB/FF	Closed
16/11	JB Invite Electralink to the Advisory Group	22/03/18	JB	Closed
13/3	ENA to consider more technical voiceover for informed audience. SJ discussing additional potential cost and time. SJ to update at next Steering Group meeting. SR to share script for local voiceovers – provided.	19/12/17	SJ	Closed
16/6	Steering Group to review latest product resource sheet provided and discuss with their workstream representatives to provide additional resources on products that are light on resources.	22/03/18	SG	Closed
17/3	JB/FF to discuss with WS3 and present revised activity plan highlighting the impact of including additional pre-consultation stakeholder engagement for the SGAM models.	26/04/18	JB/FF	Closed
17/5	SJ to request WS5 to circulate TOR for participation in WS2 product development with their mailings lists to spread the message more widely.	26/04/18	SJ	Closed
17/6	Steering Group members to propose consultancies that we can approach with an EOI outside the CEP framework for the CBA work.	26/04/18	Steering Group	Closed
17/7	JB/RB to share a list of CEP consultancies and other relevant consultancies from Ofgem's panel with the Steering Group.	26/04/18	JB/RB	Closed
17/8	JB/FF to JB/FF to progress EOI to CEP with selected consultancies.	26/04/18	JB/FF	Closed
17/9	Steering Group members to talk to their teams and re-iterate the need to progress delivery of products for all workstreams.	26/04/18	Steering Group	Closed



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#	Closed Actions	Created	Person	Status
17/10	AF to invite members of Cyber Security Team at BEIS to next meeting for discussion on how their input can be linked into ONP.	26/04/18	AF	Closed
15/3	ENA to speak to Power Responsive regarding their investor event and share invite list. Ongoing engagement with investors.	22/2/18	ENA	Closed
17/1	JB and SJ to have a meeting with Rhiannon Marsh to discuss and agree coordination on comms with Power Responsive	26/04/18	JB/SJ	Closed
17/4	LvR to provide more details on the CFF consultation timeline as and when it becomes available	26/04/18	LvR	Closed
18/1	JB to send thank you note to WS4 for their effort and involvement with CFF.	06/06/18	JB	Closed
18/2	LvR to discuss resources to support ONP Impact Assessment work in WS3 P4 and advise JB.	06/06/18	LvR	Closed
18/3	JL to send tertiary winding letter to all and JB to raise for discussion at next ENFG call.	06/06/18	JL/JB	Closed
18/4	RB to send TH link for G5 work on harmonics.	06/06/18	RB	Closed

#	Outstanding Actions	Created	Person	Status
16/9	LvR, TH and RB to talk about possible EU representatives to sit on the AG for EU input.	22/03/18	LvR/TH/ RB	Ongoing
17/2	SJ/WG to put together proposal for a dedicated ONP website for Steering Group ahead of the meeting on 6th June.	26/04/18	SJ/WG	Ongoing
19/1	To request further Open Network references in future ESO Future Plan updates	25/06/18	JL	Open
19/2	Consider input to WS3 Impact Assessment criteria (P4)	25/06/18	AF	Open
19/3	Arrange meeting with LvR, Ofgem RII02 team and ONP	25/06/18	JB/LvR	Open
19/4	Distribute paper on data initiatives	25/06/18	JB	Open
19/5	JB/FF to arrange uploading previous Steering Group meeting documents on Huddle.	25/06/18	JB/FF	Open

