

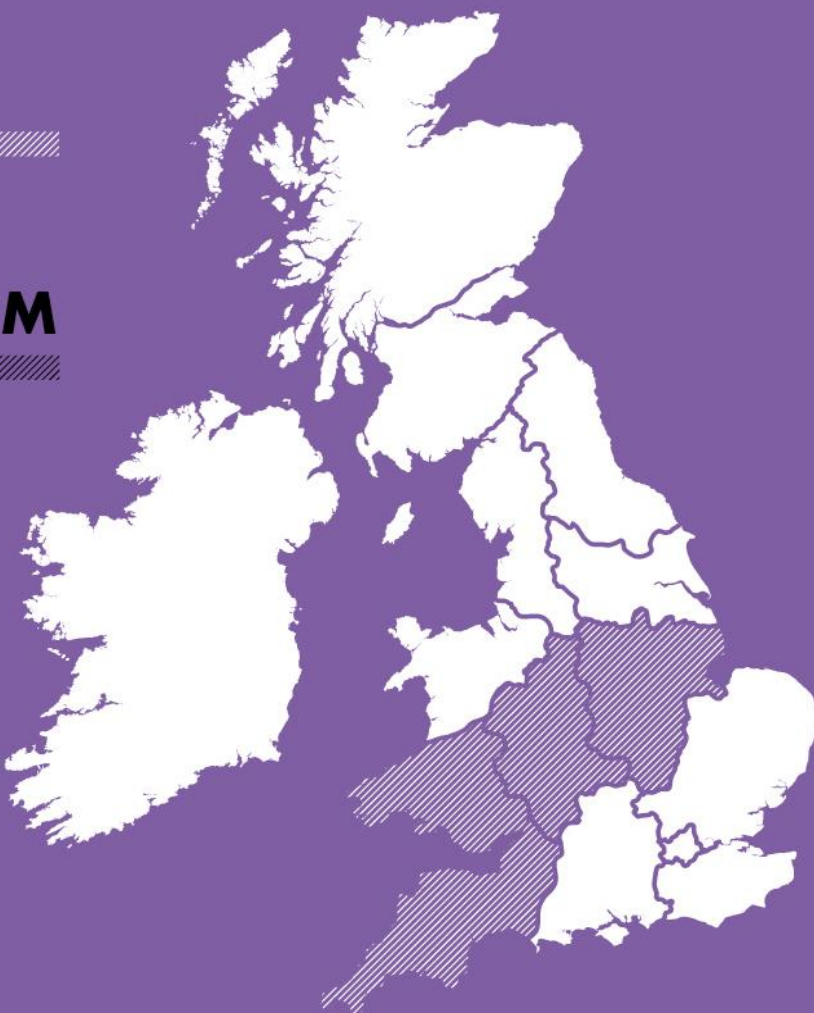


**ELECTRICITY  
FLEXIBILITY AND  
FORECASTING SYSTEM**

**Network Innovation  
Competition 2017  
WPD/EN/NIC/03**

**Innovation to enable  
the DSO transition**

**Questions & Answers**





Question No.	From	Proforma section	Criteria	Question	Date question asked	Date response required	Date received	Follow up to Question #	Confidential (y/n)
1	CO	n/a	b) Value for money	Who owns Affinity Networkflow?	22 August 2017	24 August 2017	23 August 2017		n
2	CO	5	b) Value for money	5.3.2 states that "For the avoidance of doubt, the algorithms developed for the EFFS system in the project will be freely disseminated, and implemented using an existing core product of AMT SYBEX." This is ambiguous as it could imply requiring the AMT SYBEX product to access the algorithms. Can it be clarified that the algorithms will be accessible without any vendor specific software?	22 August 2017	24 August 2017	23 August 2017		n
3	CO	n/a	g) Robust methodology/ready to implement	Any forecasting system is only as good as its historic data sources. The algorithms used will also be shaped by the quality and reliability of the data it needs to process. Here there is no mention of additional measurements requirements. What sources of data will be used and how will the usual issues regarding data conditioning be managed? What is the expectation of the daily data to be provided into this system?	22 August 2017	24 August 2017	23 August 2017		n

4	NC	n/a	b) Value for money	In our feedback following the ISP stage we said - "In order to provide the best value for money to Network Customers, you may want to investigate the feasibility of combining your project with the two other projects looking at the Distribution Network Operator to DSO transition". Please can you explain what actions you have taken to address this specific piece of feedback.	22 August 2017	24 August 2017	23 August 2017		n
5	JA	n/a	f) Relevance and timing	Please provide a map of the outputs of the various DSO transition projects that have been funded through LCN Fund and NIC (please also include the ERDF Cornwall project). Within this map please show what is unique about EFFE. Please also show where you see there being scope for collaboration with other DSO projects.	24 August 2017	29 August 2017	29 August 2017		n
6	NC	n/a	a) Enviro+consumer benefits	Your submission shows the financial benefits of the proposed trial method versus conventional reinforcement. Please explain why conventional reinforcement is the most efficient method in use today. Have you considered other methods to address the problem, eg ANM or DSR. Within the Poyry report (which accompanied the Innovation Review) you contributed data to indicates 37% of the methods trialled under the LCN Fund are ready for use in	24 August 2017	29 August 2017	29 August 2017		n

				business as usual and a further 41% are ready for use in the right circumstances. This would imply that there are more efficient methods available to licensees than traditional reinforcement.					
7	EP	n/a	d) Is innovative	Please provide more information on the risks that would prevent AMT-Sybex from developing this software using their own resources as a product to sell to Network Operators?	05 September 2017	07 September 2017	07 September 2017		n
8	EP	n/a	d) Is innovative	Please provide additional justification to the support the proposed scale of financial contribution from AMT-Sybex given the potential benefits they will gain if the solution is proven to be effective and thereafter rolled out across GB?	05 September 2017	07 September 2017	07 September 2017		y
9	EP	n/a	N/A	Please note the Expert Panel would find it helpful if you could provide a similar table to the one within the HARP submission outlining each parties responsibilities within the trial.	05 September 2017	07 September 2017	07 September 2017		n
10	EP	n/a	c) Generates new knowledge	Please explain what learning this project will deliver in addition to that which will be produced by the ENA's Open Networks project.	05 September 2017	07 September 2017	07 September 2017		n
11	EP	n/a	a) Enviro+cons umer bens	Please provide a reference to the intensity factor you have used to calculate the Carbon Benefits, ie what intensity factor was used?	05 September 2017	07 September 2017	07 September 2017		n

12	NC	n/a	g) Robust methodology/ready to implement	What impact will the changes to the ENTIRE project, that have been discussed with Ofgem, have on the EFFS proposal?	05 September 2017	07 September 2017	07 September 2017		n
13	EP	n/a	e) Partners and ext. funding	Please clarify whether EDF will be providing data/ support in relation to the forecasting	12 September 2017	14 September 2017	14 September 2017		n
14	EP	n/a	g) Robust methodology/ready to implement	Please provide more information on how you plan to get this rolled out through ENA Open Networks/ coordinated approach. How would this interrogate with the P2/6 standard?	12 September 2017	14 September 2017	14 September 2017		n
15	EP	n/a	b) Value for money	Please provide an indicative cost for the roll-out of the software across GB?	12 September 2017	14 September 2017	14 September 2017		y
16	EP	n/a	a) Enviro+consumer benefits	Please can you confirm whether the carbon benefits only include CO2? If not please explain how the final figure was built up.	12 September 2017	14 September 2017	14 September 2017		n
17	MQ	n/a	e) Partners and ext. funding	Please provide details on how you will manage the risk of using academic partners?	12 September 2017	14 September 2017	14 September 2017		n
18	MQ	n/a	g) Robust methodology/ready to implement	Please could you provide details of how you will link the optimiser to the network control software?	12 September 2017	14 September 2017	14 September 2017		n
19	RH	n/a	Multiple	Could you describe in greater detail the market interface you describe (and how it relates to the Cornwall Local Energy Market) and your intentions for how the coordination interface with GBSO will function? How does this relate to the market models set out in the Appendix of	12 September 2017	14 September 2017	14 September 2017		n

				the Commercial Principles for Contracted Flexibility paper?					
20	NC	9	Multiple	The proposed percentage proposed for Project Deliverable 1 seems high for what appears to be a project management deliverable. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.	14 September 2017	19 September 2017	19 September 2017		n
21	NC	9	Multiple	The proposed percentage of NIC funding requested associated with Project Deliverable 2 appears low given this is a core element of the project. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.	14 September 2017	19 September 2017	19 September 2017		n
22	NC	9	Multiple	The proposed percentage for Project Deliverable 6 seems high for what appears to be a commissioning process that is required when installing any equipment and may not be part of the core learning from the project. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.	14 September 2017	19 September 2017	19 September 2017		n
23	NC	9	Multiple	The proposed percentage for Project Deliverable 7 seems high given this is a description of what will be done rather than an learning from the project has tested and developed. Please provide a justification that	14 September 2017	19 September 2017	19 September 2017		n

				the proposed percentage of funding associated with this deliverable is appropriate.					
24	NC	9	Multitple	Please explain why you do not consider that the completion report falls within the scope of the common project deliverable.	14 September 2017	19 September 2017	19 September 2017		n
25	NC	4	b) Value for money	Please reconcile the statement at the top of page 20 with para 4.6.3, Appendix 3 and Appendix 4. It would appear that the estimated carbon savings are those attributable to the embedded carbon associated with transformers and cables and that the proposal does not include any estimate of the carbon benefits of releasing capacity. If this is the case, please explain why such an estimate is not appropriate.	21 September 2017	26 September 2017	26 September 2017		n
26	EP	n/a	e) Partners and ext. funding	Please provide a letter of support from National Grid SO showing their willingness to participate in the project	05 October 2017	10 October 2017	10 October 2017		n
27	EP	n/a	c) Generates new knowledge	Please confirm your intentions not to replicate any areas of the Open Networks project. If there will be any duplication, please outline why these are justified	05 October 2017	10 October 2017	10 October 2017		n
28	EP	n/a	b) Value for money	As discussed within the bilateral, please set out in writing your position on the proposed academic work on conflict avoidance.	05 October 2017	10 October 2017	10 October 2017		n





*Electricity Network Innovation Competition Full Submission*

*Supplementary Answer Form*

**Project: EFFS**

Tick if this answer has been provided verbally:

Project code	WPD/EN/NIC/03	Question Number	Q1
Question date	22/08/2017	Answer date	23/08/2017
Submission section question relates to	N/A		
Topic	Value for money		
Question	Who owns Affinity NetworkFlow?		
Notes on question			

Answer	AMT-SYBEX own Affinity Networkflow. This is part of a wider suite of software solutions that they author, provide and support for the UK Utility marketplace.
Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q2
Question date	22/08/2017	Answer date	23/08/2017
Submission section question relates to	5.3.2		
Topic	Value for money		
Question	5.3.2 states that "For the avoidance of doubt, the algorithms developed for the EFFS system in the project will be freely disseminated, and implemented using an existing core product of AMT SYBEX." This is ambiguous as it could imply requiring the AMT SYBEX product to access the algorithms. Can it be clarified that the algorithms will be accessible without any vendor specific software?		
Notes on question			
Answer	<p>The project will generate new algorithms in two main areas, namely those associated with the forecasting work and those that support the wider functionality of EFFS. The forecasting algorithms will be published by the contractor who carries out that work so that they can be used by any DNO. This will be part of the reporting within Deliverable 2.</p> <p>The development of the systems to support DSO functionality will include publishing a finalised set of DSO functional requirements under Deliverable 3 and then how these requirements will be supported by EFFS and those systems that it is integrated, published under Deliverable 4.</p> <p>The algorithms will be produced and disseminated independently of any software product. They will be instantiated in the AMT-SYBEX software solution as an enabler to support the activities described for the project/trial.</p> <p>These key outputs in terms of algorithms and methods used will be published for use by the wider industry and a complete set of information will be shared that other parties could instantiate in other IT solutions or products.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q3
Question date	22/08/17	Answer date	23/08/17
Submission section question relates to	N/A		
Topic	g) Robust methodology/ready to implement		
Question	Any forecasting system is only as good as its historic data sources. The algorithms used will also be shaped by the quality and reliability of the data it needs to process. Here there is no mention of additional measurements requirements. What sources of data will be used and how will the usual issues regarding data conditioning be managed? What is the expectation of the daily data to be provided into this system?		
Notes on question			
Answer	<p>The sources of data will include</p> <ul style="list-style-type: none"> <li>• Weather data – e.g. forecast and historical values for temperatures, windspeed and global irradiation.</li> <li>• Historic load data <ol style="list-style-type: none"> <li>1. from our SCADA systems for 11kV feeders, primary transformers, EHV and 132kV network monitoring points.</li> <li>2. LV monitoring data from previous projects, primarily LV Network Templates &amp; FALCON.</li> <li>3. 11kV half hourly load/ generation data from our billing system</li> <li>4. Any smart meter data that could be made available</li> </ol> </li> <li>• Real Time / Near real time data for supporting any in-day correction algorithms (expected to be weather and load data)</li> <li>• Network data – primarily network connectivity</li> <li>• Customer data – e.g. Estimated Annual Consumption and Profile Class</li> <li>• External data – e.g. forecasts from third parties, data from Cornwall Local Energy Market, Entire, triad warnings etc.</li> </ul> <p>For clarity, notifications of intended flexibility service operation by third parties won't be included in the forecasting element directly but will be used within EFFS to amend forecasts.</p> <p>We would expect the contractor carrying out the forecasting work to recommend any other data sets for potential inclusion and that not all the</p>		

	<p>datasets above may be required in the forecasting system. Thus the data that will be provided to the system daily will depend on the results of the forecasting work and can not be specified a this time. However, we can confirm that we are expecting to make use of existing monitoring data rather than installing additional monitoring equipment to support this work.</p> <p>Data conditioning and data quality  Data quality differs according to the different data sources. As the forecasting work will be outsourced, we would expect the contractors to propose how they will perform data conditioning. We have however already started the process of identifying and resolving issues in our time series data. To prevent duplication, we will refer contractors to the Close Down report from our Time Series Data Quality Project, which we have included as an attachment, but is also published on the WPD innovation website.  <a href="https://www.westernpowerinnovation.co.uk/Document-library/2017/Time-Series-Data-Quality/Time-Series-Data-Quality-Closedown-Report.aspx">https://www.westernpowerinnovation.co.uk/Document-library/2017/Time-Series-Data-Quality/Time-Series-Data-Quality-Closedown-Report.aspx</a></p>
Attachments	<p>Innovation Report - Time Series Data Quality Close-Down V3.0.pdf</p> <p>Available at: <a href="https://www.westernpowerinnovation.co.uk/Document-library/2017/Time-Series-Data-Quality/Time-Series-Data-Quality-Closedown-Report.aspx">https://www.westernpowerinnovation.co.uk/Document-library/2017/Time-Series-Data-Quality/Time-Series-Data-Quality-Closedown-Report.aspx</a></p>

Project code	WPD/EN/NIC/03	Question Number	Q4
Question date	22/08/17	Answer date	23/08/17
Submission section question relates to	N/A		
Topic	b) Value for money		
Question	<p>In our feedback following the ISP stage we said - "In order to provide the best value for money to Network Customers, you may want to investigate the feasibility of combining your project with the two other projects looking at the Distribution Network Operator to DSO transition". Please can you explain what actions you have taken to address this specific piece of feedback.</p>		
Notes on question			
Answer	<p>Following the feedback at the ISP stage we have contacted the project managers for Transition and Fusion to explore the opportunities for working collaboratively. Each project has been developed with project partners, following on from external calls and it became clear that while merging projects together as joint proposals would be unlikely to create a workable project there were possibilities for some collaboration between projects at key stages.</p> <p>These stages were;</p> <ol style="list-style-type: none"> <li>1) Specification of a foundation of functional requirements and data interfaces to support the DSO role. Here we are looking to gain a common set of requirements for the projects with a single stakeholder review process.</li> <li>2) Specification and execution of trials. Here we agreed that we will work together to ensure that the trials do not create overlaps but rather fit together as jigsaw pieces to create a comprehensive set of learning outcomes. While trials would be largely conducted separately, the trials would include testing of data exchanges between different DSO systems.</li> <li>3) Dissemination of learning. While some elements are unique to each project, and would be disseminated separately, the dissemination for work undertaken collaboratively would also be disseminated collaboratively.</li> </ol>		

	<p>The appropriate governance structure for interacting with the ENA was also discussed and a “light touch” approach was selected in preference to creating additional governance roles and structures for the duration of the project.</p> <p>We have reflected these points of co-operation in our project plan and have suggested that this co-operation may reduce the costs of those elements of the work, however, there is currently insufficient information to estimate the scale of the savings.</p>
Attachments	

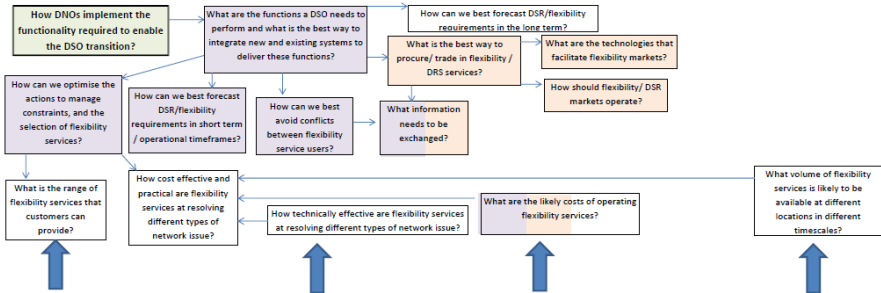
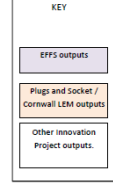


Project code	WPD/EN/NIC/03	Question Number	Q5
Question date	24/08/17	Answer date	29/08/17
Submission section question relates to	N/A		
Topic	f) Relevance and timing		
Question	Please provide a map of the outputs of the various DSO transition projects that have been funded through LCN Fund and NIC (please also include the ERDF Cornwall project). Within this map please show what is unique about EFFS. Please also show where you see there being scope for collaboration with other DSO projects.		
Notes on question			
Answer	<p>Please see the attached document "EFFS and other project outputs" which shows at a high level how the EFFS project is unique from other LCN/NIC/NIA funded projects. Broadly, other innovation projects have addressed the technical, commercial, customer and regulatory questions to a sufficient degree that for EFFS we can assume that;</p> <ul style="list-style-type: none"> <li>• DSR/Flexibility services provide value for money and should be integrated into BAU.</li> <li>• There will be a system to procure flexibility services that should integrate to an operational system, but does not necessarily need to be part of it.</li> <li>• There is sufficient understanding of reliability, ramp rates etc. to inform planning.</li> </ul> <p>The previous projects were typically at lower TRLs than EFFS, which is focussing on enabling the technology and services tested in previous projects to be brought together into a system which can support them all. Now that the foundations have been laid by past innovation success, EFF's aim is to demonstrate that all manner of flexibility can be managed under one solution, that differing market actors can be coordinated and that by improving forecasting of both demand and generation that a more accurate and efficient use of flexibility assets is utilised.</p> <p>In terms of where there is scope for collaboration with other DSO projects, our answer to question 4 raised on 22<sup>nd</sup> August and answered on 23<sup>rd</sup> August, concerning collaboration is replicated below.</p>		

	<p>Following the feedback at the ISP stage we have contacted the project managers for Transition and Fusion to explore the opportunities for working collaboratively. Each project has been developed with project partners, following on from external calls and it became clear that while merging projects together as joint proposals would be unlikely to create a workable project there were possibilities for some collaboration between projects at key stages.</p> <p>These stages were;</p> <ol style="list-style-type: none"> <li>4) Specification of a foundation of functional requirements and data interfaces to support the DSO role. Here we are looking to gain a common set of requirements for the projects with a single stakeholder review process.</li> <li>5) Specification and execution of trials. Here we agreed that we will work together to ensure that the trials do not create overlaps but rather fit together as jigsaw pieces to create a comprehensive set of learning outcomes. While trials would be largely conducted separately, the trials would include testing of data exchanges between different DSO systems.</li> <li>6) Dissemination of learning. While some elements are unique to each project, and would be disseminated separately, the dissemination for work undertaken collaboratively would also be disseminated collaboratively.</li> </ol> <p>The appropriate governance structure for interacting with the ENA was also discussed and a "light touch" approach was selected in preference to creating additional governance roles and structures for the duration of the project.</p> <p>We have reflected these points of co-operation in our project plan and have suggested that this co-operation may reduce the costs of those elements of the work, however, there is currently insufficient information to estimate the scale of the savings.</p> <p>FUSION, TRANSITION and EFFS have agreed in principle to seek and coordinate a structured approach to project collaboration, and to coordinate shared activities thereby passing on savings to the GB customer, with planned delivery of a collaboration structure and approach between Q1 and Q2 of 2018.</p>
Attachments	EFFS and other project outputs map.

**EFFS and other Project Outputs**

Other innovation projects have created a foundation of knowledge showing that flexibility services can be cost effective. EFFS builds on this learning to answer questions about how the proven technologies and services can be incorporated into a cohesive system to enable DNO to DSO transition.



Innovation & Research Project Outputs				
Area of Learning	Technical	Commercial / Regulatory	Markets / Tariffs	Customer Behaviour
Example learning outputs	<ul style="list-style-type: none"> <li>What are the technologies that can facilitate customer DSR at different scales, connected at different voltages and for different network issues?</li> <li>How reliable are the technologies used to provide flexibility services?</li> <li>What are the practical issues around DSR / flexibility service implementation?</li> <li>How can different storage technologies provide a range of flexibility services at different scales?</li> </ul>	<ul style="list-style-type: none"> <li>How can contracts be implemented that allow for multiple users to access the same flexibility resources?</li> <li>How can services be dispatched by one party on behalf of another?</li> <li>How can service providers stack value from different services to create a viable business case?</li> <li>How can flexibility service costs be controlled when locational impacts create a monopoly/ near monopoly?</li> </ul>	<ul style="list-style-type: none"> <li>What tariff structures and payments are successful at incentivising new customers/ providers to provide flexibility services?</li> <li>What tariff structures and payments are successful at incentivising existing customers/ providers to provide additional flexibility services?</li> <li>How can different types of markets provide the best allocation of flexibility resources?</li> <li>What balance between the certainty of exclusively reserved assets and the fluidity of spot markets provides the best value for electricity customers?</li> </ul>	<ul style="list-style-type: none"> <li>How can we engage customers to provide DSR services?</li> <li>How reliable is the response provided by customers?</li> <li>What factors affect reliability?</li> <li>How do customers respond to financial signals? covering a range of different customer types providing a range of different services.</li> <li>How is customer willingness to provide services affected by providing a managed service for them?</li> <li>How is customer behaviour affected by the framework of incentives and penalties?</li> </ul>
Contributing Projects	Most DSR related projects, e.g. FALCON, SYNC, Low Carbon London, Thames New Valley Vision, ECHO, Flexible plug and play etc. Storage investigated by Solar Storage, Smarter Network Storage, Nines etc.	Multiple projects, including Falcon, SYNC, Entire, Solar Storage etc.	Multiple projects, notably Plugs and Sockets,	Multiple projects including Sunshine Tariff, Low Carbon London, Entire etc.

Project code	WPD/EN/NIC/03	Question Number	Q6
Question date	24/08/17	Answer date	29/08/17
Submission section question relates to	N/A		
Topic	a) Enviro+consumer bens		
Question	<p>Your submission shows the financial benefits of the proposed trial method versus conventional reinforcement. Please explain why conventional reinforcement is the most efficient method in use today. Have you considered other methods to address the problem, eg ANM or DSR. Within the Poyry report (which accompanied the Innovation Review) you contributed data to indicates 37% of the methods trialled under the LCN Fund are ready for use in business as usual and a further 41% are ready for use in the right circumstances. This would imply that there are more efficient methods available to licensees than traditional reinforcement.</p>		
Notes on question			
Answer	<p>The submission identified four clear benefits where the EFFS method would deliver discrete savings.i.e.</p> <ul style="list-style-type: none"> <li>• Benefit 1 – Deferral or avoidance of traditional reinforcement</li> <li>• Benefit 2 – Additional flexibility in fault restoration</li> <li>• Benefit 3 – Reduced balancing costs via co-ordination with SO</li> <li>• Benefit 4 – Increased / faster renewables connections</li> </ul> <p>However, the financial benefit of the project, have been calculated using solely the deferral or avoidance of traditional reinforcement benefit. The traditional reinforcement costs have been taken from the WPD 2014 business plan. We have chosen not to attempt to quantify benefits 2-4 as to do so would require making assumptions that would be difficult to substantiate at this stage. The project will, however, provide further information to help assess these benefits.</p> <p>Conventional reinforcement forms a clear benchmark against which the benefits savings can be measured accurately, as it provides additional capacity on the network across all conditions and time periods. Other efficient methods may facilitate connections but at the expense of future flexibility. The aim of the EFFS project is to provide a solution that will enable the use of flexibility services and active network management methods by a DSO, including ANM and DSR. EFFS is therefore an enabler to help make the potential savings identified by other LCNF projects available</p>		

	as BAU. It is expected that EFFS will provide information that will inform comparative cost benefit analysis assessments between conventional reinforcement and other efficient methods.
Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q7
Question date	05/09/17	Answer date	06/09/17
Submission section question relates to	N/A		
Topic	d) Is innovative		
Question	Please provide more information on the risks that would prevent AMT-Sybex from developing this software using their own resources as a product to sell to Network Operators?		
Notes on question			
Answer	<p>Currently the lack of a consensus concerning what the solution requirement is in this area among DNOs and the market in general makes it impossible to define a product solution for the market that could be accompanied by an acceptable business case. AMT-SYBEX has a track record of bringing new solutions to bear in the market which typically go on to be widely adopted and while they have been actively pursuing and discussing this area with a number of interested industry parties, their willingness to invest is not currently accompanied by the necessary agreement of requirement specifics from other parties (including DNO and Supplier input) as there are currently too many uncertainties that remain unexplored in the context of a specific project that has the necessary input from across the industry.</p> <p>It is highly unlikely that a solution unilaterally defined by AMT-SYBEX would be acceptable to the wider industry. While the area of flexibility and how this can be managed to greatest effect is widely agreed as an area of significant strategic focus, specific solution patterns that can be used to accelerate the adoption of real implementations in this area are still lacking. Without input from other parties the capital investment required that accompanies the EFFS proposal would not be approved by the governance procedures that exist within AMT-SYBEX and the wider Capita plc for justification of product investment of this kind.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q8
Question date	05/09/17	Answer date	06/09/17
Submission section question relates to			
Topic	d) Is innovative		
Question	Please provide additional justification to the support the proposed scale of financial contribution from AMT-Sybex given the potential benefits they will gain if the solution is proven to be effective and thereafter rolled out across GB?		
Notes on question			
Answer	<p>AMT-SYBEX are contributing all of the product development and configuration activities at no cost to the project. Our standard day rates for consultancy services have also been reduced by ■■■.</p> <p>In addition AMT-SYBEX are providing the Affinity Suite software licensing at a significantly discounted price to the project (■■■ discount).</p> <p>This level of investment that is being offered is therefore in excess of ■■■ This is justified by AMT-SYBEX's experience of providing attractive propositions to the market that go on to secure ■■■ market share in a UK context. Given the wider opportunity in UK DNOs, Supplier/Aggregators, Water companies and internationally they have therefore produced an internal business case to support building this as an extension to their product offering to the market. AMT-SYBEX is also committing to share the model and algorithms which means that others could instantiate these in their product based on the project outputs that will be disseminated. Given the level of investment from AMT-SYBEX, and the subsequent availability of these outputs to other parties, we believe that this offers good value for money in the context of NIC funding.</p> <p>AMT-SYBEX's belief that they will see a return on this investment is based on historical precedent and their experience of the market. For example, AMT-SYBEX launched a new product (Meterflow) in 2011 for Smart Meter Data Management to support the UK's Supplier led smart meter roll-out.</p>		

	<p>This product has gone on to become the most widely adopted solution in the UK with ■■■, for example, currently using this to manage ■■■ smart meters installed in customer’s premises. The Marketflow product also entered the market to manage industry interactive processes (e.g. Change of Supplier, Metering etc.) and is now managing around 80% of the industry’s data exchanges in this area. We therefore believe that the involvement of AMT-SYBEX in the manner proposed adds considerable value to this proposal as they have a proven track record of producing commercially viable products that go on to add value to the industry and accelerate adoption of more efficient solutions.</p>
Attachments	



Project code	WPD/EN/NIC/03	Question Number	Q9																																																																																																																																																																																																																	
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Question	Please note the Expert Panel would find it helpful if you could provide a similar table to the one within the HARP submission outlining each parties responsibilities within the trial.																																																																																																																																																																																																																			
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Answer	<p>Please find a table as requested below:</p> <table border="1"> <thead> <tr> <th>Workstream</th> <th>Task</th> <th>Ofgem</th> <th>WPD</th> <th>AMT-SYBEX</th> <th>Academic Partner</th> <th>SGS</th> <th>National Grid</th> <th>EDF Energy / Centrica / Project Entire</th> <th>SSE/SP</th> <th></th> </tr> </thead> <tbody> <tr> <td>WS3</td> <td>Review Trials Strategy</td> <td>I</td> <td>A, R</td> <td>R</td> <td>C</td> <td>R</td> <td>R</td> <td>R</td> <td>C</td> <td>R</td> </tr> <tr> <td>WS3</td> <td>Plant Testing</td> <td>I</td> <td>A, R</td> <td>R</td> <td></td> <td>R, C</td> <td></td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>WS3</td> <td>System Operator Testing</td> <td>I</td> <td>A, R</td> <td>R</td> <td></td> <td>R, C</td> <td>R</td> <td></td> <td></td> <td>C</td> </tr> <tr> <td>WS3</td> <td>Supplier/Aggregator Testing</td> <td>I</td> <td>A, R</td> <td>R</td> <td></td> <td>R, C</td> <td></td> <td>R</td> <td></td> <td>I</td> </tr> <tr> <td>WS3</td> <td>Multi Party Operation Testing</td> <td>I</td> <td>A, R</td> <td>R</td> <td></td> <td>R, C</td> <td>R</td> <td>R</td> <td>R</td> <td></td> </tr> <tr> <td>WS3</td> <td>Bulk / Volume Testing</td> <td>I</td> <td>A, R</td> <td>R</td> <td>I</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WS3</td> <td>Gateway Review 3</td> <td>C</td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WS4</td> <td>Learning Dissemination 2</td> <td>I</td> <td>A, R</td> <td>R</td> <td>C</td> <td></td> <td>I</td> <td>I</td> <td>I</td> <td></td> </tr> <tr> <td>WS4</td> <td>Project Closedown Report</td> <td>C</td> <td>A</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Project Steering Group</td> <td>C</td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>WPD Project Board</td> <td></td> <td>A</td> <td>I</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>AMT-Sybex Project Board</td> <td></td> <td>I</td> <td>A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Design Authority</td> <td></td> <td>R, C</td> <td>A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Change Panel</td> <td></td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Cost Tracking</td> <td></td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Project Meetings</td> <td></td> <td>R, C</td> <td>A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Planning Review</td> <td></td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ALL</td> <td>Risk Workgroup</td> <td></td> <td>A, R</td> <td>R</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p> R Responsible  A Accountable  C Consulted  I Informed </p>			Workstream	Task	Ofgem	WPD	AMT-SYBEX	Academic Partner	SGS	National Grid	EDF Energy / Centrica / Project Entire	SSE/SP		WS3	Review Trials Strategy	I	A, R	R	C	R	R	R	C	R	WS3	Plant Testing	I	A, R	R		R, C				A	WS3	System Operator Testing	I	A, R	R		R, C	R			C	WS3	Supplier/Aggregator Testing	I	A, R	R		R, C		R		I	WS3	Multi Party Operation Testing	I	A, R	R		R, C	R	R	R		WS3	Bulk / Volume Testing	I	A, R	R	I						WS3	Gateway Review 3	C	A, R	R							WS4	Learning Dissemination 2	I	A, R	R	C		I	I	I		WS4	Project Closedown Report	C	A	R							ALL	Project Steering Group	C	A, R	R							ALL	WPD Project Board		A	I							ALL	AMT-Sybex Project Board		I	A							ALL	Design Authority		R, C	A							ALL	Change Panel		A, R	R							ALL	Cost Tracking		A, R	R							ALL	Project Meetings		R, C	A							ALL	Planning Review		A, R	R							ALL	Risk Workgroup		A, R	R						
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Project code	WPD/EN/NIC/03	Question Number	Q10
Question date	05/09/17	Answer date	06/09/17
Submission section question relates to	N/A		
Topic	c) Generates new knowledge		
Question	Please explain what learning this project will deliver in addition to that which will be produced by the ENA's Open Networks project.		
Notes on question			
Answer	<p>The ENA's Open Networks project has considered the functions and competencies of DSOs and is in the process of considering the organisation, people, systems and interfaces needed to deliver the DSO transition. Part of the ongoing work includes translating the requirements captured to be represented as an SGAM model.</p> <p>The final view of the functions of a DSO need to be validated and this could either be by stakeholder review by the ENA workgroup or by EFFE (and Transition or Fusion)</p> <p>That is the point at which EFFE will begin to deliver different outputs to the ENA workgroup starting by creating a blueprint for the optimal technical implementation of the DSO functionality. At this stage, interface specifications would also be confirmed.</p> <p>There will also be separate learning generated in respect to the pieces of work on forecasting and the options for co-ordinating flexibility services to avoid conflict.</p> <p>Lastly the trial will generate new learning by demonstrating the feasibility of the technical implementation of the DSO functionality.</p> <p>To test the software to demonstrate the functionality with a high volume of flexibility assets is expected to take place as a test bench exercise, rather than with real customers. By setting the test environment to have load and generation profiles that are expected for the future, this high volume testing is likely to provide additional insight about the potential benefits of flexibility systems, for example, their potential to contribute to fault restoration.</p>		

Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q11
Question date	05/09/17	Answer date	06/09/17
Submission section question relates to	N/A		
Topic	a) Enviro+consumer bens		
Question	Please provide a reference to the intensity factor you have used to calculate the Carbon Benefits, i.e. what intensity factor was used?		
Notes on question			
Answer	<p>The intensity factor used to calculate the Carbon Benefits was obtained from the work undertaken by Energy North West (ENW) in their Capacity to Customers project. Specifically, it was the Carbon Impact Assessments Scenario Results report authored by Dr John Broderic of the Tyndall Centre, University of Manchester, published February 2015 that was used. We believe that this report obtained the figure from the ENW Carbon Footprint Report (2011 update) however, we are unable to confirm this.</p> <p>Section 2.3 of the Scenarios Results report gives a carbon saving figure of 92.7 tCo2e for each new 38 MVA transformer saved by not being installed on the network. This figure was used as the assumed carbon saving for each planned scheme that could be replaced with a flexible scheme using the EFFS solution.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q12
Question date	05/09/17	Answer date	06/09/17
Submission section question relates to	N/A		
Topic	g) Robust methodology/ready to implement		
Question	What impact will the changes to the ENTIRE project, that have been discussed with Ofgem, have on the EFFS proposal?		
Notes on question			
Answer	<p>The EFFS project seeks to reduce the cost and time associated with recruiting customers for the trial stage by making use of customers already signed up to provide flexibility services for other purposes. The changes for ENTIRE are likely to reduce the number of participating customers, but the degree of reduction is not yet clear.</p> <p>ENTIRE is however, not the only potential source of customers that can be used within the trial. We will still be able to work with the Cornwall Local Energy Market, EDF Energy and potentially any customers from Fusion or Transition should those projects go ahead.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q13
Question date	12/09/17	Answer date	14/09/17
Submission section question relates to	N/A		
Topic	e) Partners and ext. funding		
Question	Please clarify whether EDF will be providing data/ support in relation to the forecasting.		
Notes on question			
Answer	<p>As yet we have not specified any specific requirement on EDF Energy providing data / support in relation to forecasting, as the detail of what information we will be looking to exchange with EDF Energy is not scheduled to take place until the requirement phase of the the project in 2018. However, one of the lines of discussion that we had with EDF Energy, when discussing their involvement in the project relates to sharing project information with them with a view to benefiting from their insight and experience. As such we will afford EDF Energy full visibility of forecasting specification work requirements together with the output (interim / final) from this work, for their review. We would look to capture the benefit of their experience (as far as they are able to share this) and include this for use by the project.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q14
Question date	12/09/17	Answer date	13/09/17
Submission section question relates to	N/A		
Topic	g) Robust methodology/ready to implement		
Question	Please provide more information on how you plan to get this rolled out through ENA Open Networks/ coordinated approach. How would this interrogate with the P2/6 standard?		
Notes on question	We assume this means "integrate with" or "impact on" P2/6 not "interrogate with" it.		
Answer	<p>For DSO transition to work, the various DNOs will need to agree common standards for how they operate. The alternative, with each DNO developing their own standards, would be very difficult for the other parties involved – i.e. National Grid, Aggregators, Suppliers, customers providing flexibility services directly etc. That's not to say that each DNO will use exactly the same services, but rather there has to be a common core to the approach taken. The EFS project will provide a blueprint for fulfilling the agreed DSO business functions. Among other things, this will include definitions of interfaces and suggested timescales for information exchange to take place. These will be tested during the trial and will either be proved to be workable or will result in suggested amendments.</p> <p>Once complete, the way to ensure that all DNOs operate in the same way, is to create standards that apply across the industry. The ENA have a long history of developing and managing such standards, such as P2/6 and are a natural home for standards concerning network operation.</p> <p>Standardisation can also be achieved via other parties as is the case with the Balancing and Settlement Code, administered by Elexon. Where new DSO functions impact on existing energy trading activity, it may be necessary to alter the relevant codes for energy trading as well as setting up new standards via the ENA.</p> <p>The P2/6 standard concerns the design of networks to ensure an appropriate</p>		

	<p>level of network security. It sets out the planning assumptions for different levels of Group Demand i.e. how many concurrent faults should be taken into account and timescales for restoration.</p> <p>The standard was originally devised at a time when distributed generation was rare and so the potential from distributed generation to restore supplies was discounted. In a scenario where there are not only increased levels of both distributed generation and demand side response, but also better ways to establish the resources available and call on them at short notice, then it may be reasonable to include at least some contribution from flexible assets when assessing P2/6 compliance, so long as the operational practicality of such an approach can be demonstrated. This would allow the risks of incorrectly estimating flexibility service availability to be compared to the risk of over-investment in the network, with assets that add little real value.</p> <p>Within our proposal, we have suggested that there should be some high volume testing of the software and that by including scenarios representing different levels of generation and flexibility service availability, we could gain insights into the degree to which flexibility services can contribute to fault restoration, informing any review of the P2/6 standard.</p>
Attachments	



Project code	WPD/EN/NIC/03	Question Number	Q15
Question date	12/09/17	Answer date	14/09/17
Submission section question relates to	N/A		
Topic	b) Value for money		
Question	Please provide an indicative cost for the roll-out of the software across GB?		
Notes on question			
Answer	An indicative cost for rolling out this software, or similar software incorporating the necessary functionality across GB, is likely to be in the order of ■■■.		
Attachments			

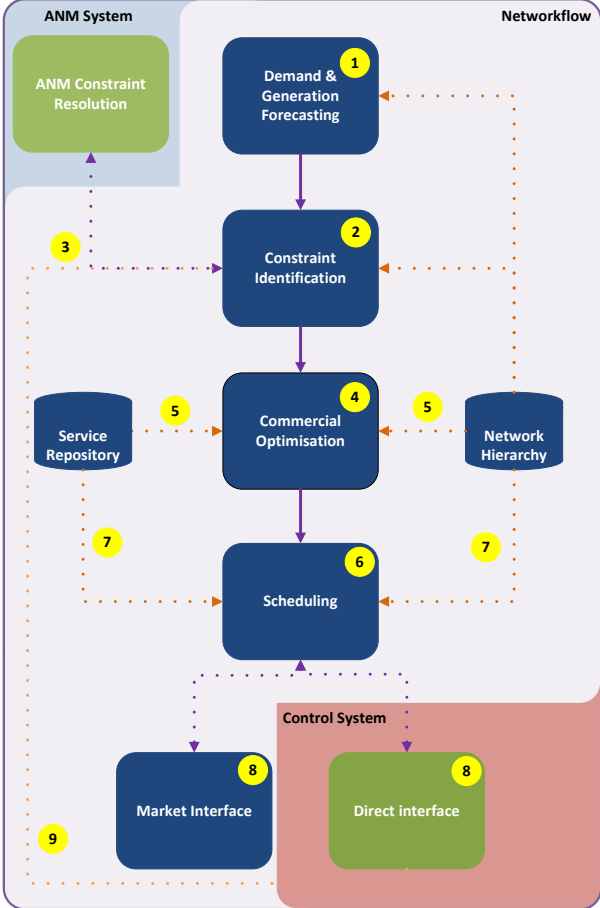
Project code	WPD/EN/NIC/03	Question Number	Q16
Question date	12/09/17	Answer date	14/09/17
Submission section question relates to	N/A		
Topic	a) Enviro+consumer bens		
Question	Please can you confirm whether the carbon benefits only include CO2? If not please explain how the final figure was built up.		
Notes on question			
Answer	<p>The calculated carbon benefits include only CO2 savings. As we reported in our response to an earlier question (Q11), we used data published by work undertaken by Energy North West (ENW) in their Capacity to Customers project as the basis upon which we calculated our carbon benefits. The Scenario Results report authored by Dr John Broderick of the Tyndall Centre, University of Manchester, published February 2015 makes clear that only CO2 savings have been included in respect of the data we have used.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q17
Question date	12/09/17	Answer date	14/09/17
Submission section question relates to	N/A		
Topic	e) Partners and ext. funding		
Question	Please provide details on how you will manage the risk of using academic partners?		
Notes on question			
Answer	<p>Our bid has provided for the use of Capita plc's (AMT-Sybex parent company) Chief Data Scientist and experts in his data analytics team. The Chief Data Scientist, Doug Brown has specific expertise, experience and knowledge of all aspects of data management and forecasting techniques and applications. He will act as Design Authority for the academic work being undertaken and will:</p> <ul style="list-style-type: none"> <li>• oversee the full specification of requirements;</li> <li>• fully support the procurement process for selecting the partner;</li> <li>• scrutinise / challenge the delivery output and results from the academic partner chosen to undertake this element of the project; and</li> <li>• provide sign-off for this element of the project.</li> </ul> <p>This will ensure that the output delivery fully meets the delivery requirements of the project.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q18
Question date	12/09/17	Answer date	14/09/17
Submission section question relates to	N/A		
Topic	g) Robust methodology/ready to implement		
Question	Please could you provide details of how you will link the optimiser to the network control software?		
Notes on question			

Answer

Please see the diagram and text below:



- 1 Forecast demand & generation for network locations
- 2
- 3 ANM system schedules resolution for constraints that it can, remaining constraints passed to commercial optimisation
- 4 Commercial optimisation uses constraint delta identified by constraint identification to determine the most value for money service for energy exchange referencing the network hierarchy for device and service parameters for use in optimisation
- 5
- 6 Services are then scheduled into a service calendar for confirmation populating the optimised energy exchanges into the previously identified service referencing the service repository and the network hierarchy for location and service parameters
- 7
- 8 Depending on the service selected during optimisation these are then communicated either via the commercial market interface to a third party for confirmation or to a directly connected asset via a real time controller
- 9 Real time control interface also informs ANM constraint resolution and constraint identification

Attachments

Project code	WPD/EN/NIC/03	Question Number	Q19
Question date	12/09/17	Answer date	13/09/17
Submission section question relates to	N/A		
Topic	Multiple		
Question	<p>Could you describe in greater detail the market interface you describe (and how it relates to the Cornwall Local Energy Market) and your intentions for how the coordination interface with GBSO will function? How does this relate to the market models set out in the Appendix of the Commercial Principles for Contracted Flexibility paper?</p>		
Notes on question			
Answer	<p>The Cornwall Local Energy Market will be enabled by a software platform that brings buyers and sellers of flexibility services together. It will allow those seeking flexibility solutions to publicise their requirements and those who can provide solutions to provide their proposals and prices. The Cornwall LEM will be trialling a variety of different procurement mechanisms.</p> <p>However, it is possible that the Cornwall LEM would not be the only market platform as other providers of flexibility services, such as aggregators, may wish to operate their own platforms. We intend to try to interface with EDF's system to show how the standard interfaces can be adapted for specific technologies.</p> <p>The market interface will handle the following functions (among others)</p> <ul style="list-style-type: none"> <li>• Communicating required services to the market</li> <li>• Retrieving responses from providers</li> <li>• Notification of the services selected from the providers responses.</li> <li>• Communicating confirmation of service requirements where these services need to be armed or triggered.</li> <li>• Communication supporting service delivery validation and financial settlement.</li> </ul> <p>Sharing information with third parties, primarily National Grid, about the services that have been contracted, armed or triggered is a function provided by the Cornwall LEM. If other market places do not provide that data exchange function then this will need to take place separately.</p>		

	<p>The complete extent of the data exchange to third parties ( data items, event timings etc.) will not be known until the work considering how best to avoid conflict in DER usage is complete.</p> <p>Market models 1&amp;2 are TSO focussed, but in model 2, the NETSO takes explicit account of the impact of DER service provision on distribution networks. This is supported by the DNO making their areas of constraint visible via their procurement activity and their sharing data on their planned / actual use of services. This could also be shared via other mechanisms, such as heat maps which will be considered by the conflict avoidance work package in EFFS.</p> <p>Market models 3&amp; 4 allow for combined purchasing. Where the purchasing is by the NETSO then the interface requirements from the DSO perspective will be a subset of those already listed, i.e. specifying requirements, sending arming and triggering notifications, service delivery validation and settlement information.</p> <p>Where the DSO purchases on behalf of the NETSO, then additional information will be required. This is not currently supported by the Cornwall LEM but could be trialled by either extending the Cornwall LEM functionality or that associated with the EDF purchasing.</p> <p>Model 5, where services are jointly procured but despatched by one party would also involve using the same type of data exchange as has been outlined for the Cornwall LEM.</p> <p>Model 6 where the DNO procures and despatches services on behalf of the NETSO, as well as for their own purposes, would require additional interfaces to receive the relevant information about the NETSO's requirements but this would be a relatively minor addition that could be incorporated into either the Cornwall or EDF market platform interfaces.</p>
Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q20
Question date	14/09/17	Answer date	19/09/17
Submission section question relates to	9		
Topic	Multiple		
Question	The proposed percentage proposed for Project Deliverable 1 seems high for what appears to be a project management deliverable. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.		
Notes on question			
Answer	We calculated the percentage of Project Deliverable 1 based on the cost of each Project Deliverable as a percentage of the overall cost of the project, including man days effort, hardware, license fees, etc. This provides a relatively scientific approach to the payment milestones. Under closer scrutiny, we are able to justify payments on an "effort input" basis rather than the value of the output, which we consider to be subjective.		
Attachments			



Project code	WPD/EN/NIC/03	Question Number	Q21
Question date	14/09/17	Answer date	19/09/17
Submission section question relates to	9		
Topic	Multiple		
Question	The proposed percentage of NIC funding requested associated with Project Deliverable 2 appears low given this is a core element of the project. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.		
Notes on question			
Answer	We calculated the percentage of Project Deliverable 2 based on the cost of each Project Deliverable as a percentage of the overall cost of the project, including man days effort, hardware, license fees, etc. This provides a relatively scientific approach to the payment milestones. Under closer scrutiny, we are able to justify payments on an "effort input" basis rather than the value of the output, which we consider to be subjective.		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q22
Question date	14/09/17	Answer date	19/09/17
Submission section question relates to	9		
Topic	Multiple		
Question	<p>The proposed percentage for Project Deliverable 6 seems high for what appears to be a commissioning process that is required when installing any equipment and may not be part of the core learning from the project. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.</p>		
Notes on question			
Answer	<p>We calculated the percentage of Project Deliverable 6 based on the cost of each Project Deliverable as a percentage of the overall cost of the project, including man days effort, hardware, license fees, etc. This provides a relatively scientific approach to the payment milestones. Under closer scrutiny, we are able to justify payments on an "effort input" basis rather than the value of the output, which we consider to be subjective.</p>		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q23
Question date	14/09/17	Answer date	19/09/17
Submission section question relates to	9		
Topic	Multiple		
Question	The proposed percentage for Project Deliverable 7 seems high given this is a description of what will be done rather than an learning from the project has tested and developed. Please provide a justification that the proposed percentage of funding associated with this deliverable is appropriate.		
Notes on question			
Answer	We calculated the percentage of Project Deliverable 7 based on the cost of each Project Deliverable as a percentage of the overall cost of the project, including man days effort, hardware, license fees, etc. This provides a relatively scientific approach to the payment milestones. Under closer scrutiny, we are able to justify payments on an "effort input" basis rather than the value of the output, which we consider to be subjective.		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q24
Question date	14/09/17	Answer date	19/09/17
Submission section question relates to	9		
Topic	Multiple		
Question	Please explain why you do not consider that the completion report falls within the scope of the common project deliverable.		
Notes on question			
Answer	We assume by "completion report" you are referring to a project closedown report. A project closedown report is included in the common project deliverable; Deliverable 10 in Section 9 of our full submission pro-forma.		
Attachments			

Project code	WPD/EN/NIC/03	Question Number	Q25
Question date	21/09/17	Answer date	26/09/17
Submission section question relates to	4		
Topic	b) Value for money		
Question	Please reconcile the statement at the top of page 20 with para 4.6.3, Appendix 3 and Appendix 4. It would appear that the estimated carbon savings are those attributable to the embedded carbon associated with transformers and cables and that the proposal does not include any estimate of the carbon benefits of releasing capacity. If this is the case, please explain why such an estimate is not appropriate.		
Notes on question			
Answer	<p>The carbon benefits quantified have been calculated solely on an assumed saving per EFFS scheme basis. Notably, resulting from not installing physical network assets such as transformers and cables, which mirror the business case assumptions used. It is quite likely that in addition to these embedded carbon savings that there may be additional network capacity savings from some schemes where network flexibility services are used. For example, where the use of renewables or DSR are encouraged resulting in additional capacity savings. However, it is equally possible that some flexibility schemes may operate for some or much of the time using existing DG plant which may be fossil fuel in nature, especially where standby generators are utilised for example. In these circumstances, it is unlikely that such additional carbon savings would result.</p> <p>As the use of flexibility services will differ from scheme to scheme based upon availability and cost benefit, it would be impossible to accurately predict its mix at this stage. Any assessment being somewhat qualitative rather than quantitative in nature. As stated in the the bid document, we have looked to keep the estimated carbon saving predicted at a conservative level, and only include it where we have been able to quantify the benefit.</p>		

Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q26
Question date	05/10/17	Answer date	10/10/17
Submission section question relates to	N/A		
Topic	e) Partners and ext. funding		
Question	Please provide a letter of support from National Grid SO showing their willingness to participate in the project		
Notes on question			
Answer	Please find attached the e mail string which confirms National Grid's support and partnership involvement with the EFFS project.		

<b>Attachments</b>	<p><b>From:</b> McLeavey-Reville, Cian ■ <b>Sent:</b> 01 August 2017 11:05 <b>To:</b> ■■■■■ <b>Cc:</b> ■■■■■ <b>Subject:</b> RE: EXT    Electricity Flexibility and Forecasting System (EFFS)</p> <p>Hi ■■■, ■■■,</p> <p>I very happy to confirm our support for this bid – apologies for the delay in confirmation, I just had to make sure that the relevant resource was available within the timeframes discussed.</p> <p>As discussed, can we include an amount to cover our time in the bid? ■■■. Of course this is just my estimate based on our conversations, more than happy to discuss this further.</p> <p>We are delighted to be part of this exciting project – a really great collaboration and learning opportunity. Please do let me know if you need anything else from us at this stage?</p> <p>Many thanks Cian.</p> <p><b>Cian McLeavey-Reville</b> Innovation Strategy Manager UK Energy Strategy   System Operator <a href="#">nationalgrid</a></p> <p>■■■ ■■■</p>



Project code	WPD/EN/NIC/03	Question Number	Q27
Question date	05/10/2017	Answer date	06/10/17
Submission section question relates to	n/a		
Topic	c) Generates new knowledge		
Question	Please confirm your intentions not to replicate any areas of the Open Networks project. If there will be any duplication, please outline why these are justified		
Notes on question			
Answer	<p>It is the intention of the EFFS project to build upon the output from the Open Networks project rather than duplicate it. The effort and cost specifying and consulting on the business requirements of a DSO to be supported by the EFFS system will depend on the detail and quality of the output from the Open Networks Project.</p> <p>Similarly some of the work by the Open Networks Project in determining the potential future market models will feed into EFFS work on conflict avoidance, but this is not expected to reduce the costs for this work considerably. Please refer to Question 28 for more details about the approach to the conflict avoidance academic work.</p> <p>The majority of the elements of the project, such as the forecasting work, creating a technical specification from the business requirements, building the system and testing it, will have little or no overlap with the Open Network Project.</p>		

Attachments	

Project code	WPD/EN/NIC/03	Question Number	Q28
Question date	05/10/2017	Answer date	06/10/17
Submission section question relates to	n/a		
Topic	b) Value for money		
Question	As discussed within the bilateral, please set out in writing your position on the proposed academic work on conflict avoidance.		
Notes on question			
Answer	<p>One of the key issues for the DSO transition is how we avoid conflicts with the use of flexibility resources. We have included a specific piece of work within the EFFS bid to obtain an academic view on the various options for avoiding conflict, the likely requirements and trade-offs for each option. We'd expect consideration to be given to the likelihood of conflicts occurring and the impact of those conflicts which may require scenario analysis. The results of this work would influence the design of the software by specifying the functions and data exchanges necessary to implement the conflict avoidance options, and would also inform the discussions on the various market models.</p> <p>Our Open Networks project with ENA also intends to investigate conflict avoidance and we agree that duplication of effort could be avoided but consider that the academic study proposed in EFFS will bring something additional to the process. Therefore, on award of EFFS, we will coordinate with the Open Networks project on the precise scope of the conflict avoidance work and how the academic partner can collaborate with the Open Networks project during that work. Any reduction in the effort and expense to EFFS, would be reflected in reduced project costs, in the same way as any savings from collaboration with Transition or Fusion.</p>		

Attachments	