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Imperial College London NERA
Economic Consulting

ENGINEERING RECOMMENDATION P2 REVIEW

Monthly Progress Report to 14 June 2015

DCRP P2 WG

Report No.: 16011094/PROG 5, Rev. 001 **Document No.:** 16011094/PROG 5

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Project name: Engineering Recommendation P2 Review

Report title: Monthly Progress Report to 14 June 2015

Customer: DCRP P2 WG

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Objective:

This document reports on the monthly progress made by the Consortium for the P2 review project. Progress is reported on each of the work streams that are presently active including:

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- estimated progress so far
- forecast time to complete and deliver
- issues encountered
- forecast of potential issues or risks
- forecast of any changes in scope
- Target progress for next month.

The report also includes the latest revision of overall P2 Review project programme (phase 1), the up dated outstanding actions register and the latest version of the general risk register.

The programmed dates for future progress reports are summarised below:

No.	DCRP P2 WG Meeting Date	Issue Monthly Progress Report
5	Monday 22 June	Friday 19 June
6	Wednesday 29 July	Friday 24 July
7	Wednesday 19 Aug	Friday 21 Aug
8	Wednesday 23 Sept	Friday 18 Sept
9	Tuesday 27 Oct	Friday 23 Oct
10	Wednesday 25 Nov	Friday 20 Nov
11	Friday 18 Dec	Friday 18 Dec

Rev. No.	Date	Reason for Issue	Prepared by
001	19/6/2015	Consortium monthly progress reporting	C MacKenzie

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1 ACTIVE WORK STREAMS

The active work streams and sub work streams are highlighted in Table 1 along with those work streams that are complete or have still to commence.

Work stream/sub-work stream	Deliverable	Activity Status
Work Stream 1-Project Initiation	Issue of initiation paper	Completed.
Work Stream 2 - Assessment of P2/6 and Identifying Options for Reform		Ongoing
WS2.0 Stakeholder interviews (intimate)	A summary report covering key highlights from the stakeholder engagement/interview activities.	Ongoing
WS2.1 Framework for assessing security performance and measures and characteristic network designs	Framework for the development of future network design standards	Ongoing
WS2.2 Service quality and cost effectiveness of the delivered to consumers by the present network design practises	Summary report that will feed into the 'options' milestone report	Ongoing
WS2.3 Risk associated with asset replacement, common mode failures and high impact events	Summary report that will feed into the 'options' milestone report	Ongoing
WS2.4 Impact of Smart Grid technologies on service quality risk profile	Summary report that will feed into the 'options' milestone report	Ongoing
WS2.5 Assessment of impacts of alternative control and operation strategies on security of supply	Summary report that will feed into the 'options' milestone report	Ongoing
W52.6 . Loss inclusive design of distribution networks and impact on security of supply	Summary report that will feed into the 'options' milestone report	Started
WS2.7: Alignment of security of supply standard in distribution networks with other codes and schemes	Summary report that will feed into the 'options' milestone report	Initial start made.
WS2.9: Options for future development of distribution network standard including 1st Iteration of the Techno economic Model	Summary report that will feed into the 'options' milestone report	Initial start made.
Work Stream 3 - P2/6 Options Report	P2/6 Options Report	Still to start
Work Stream 5 Stakeholder Engagement Report: Workshop	Stakeholder Workshop Report.	Still to start
Work Stream 6 - Formal Strategy Consultation for P2/6	Formal Strategy Consultation Paper for P2/6	Still to start
Work Stream 7 – Detailed review and analysis	Tabulated view of all question responses and actions to be taken with regards to final Phase 1 Report.	Still to start
Work Stream 8 - Phase 1 report	Phase 1 final report	Still to start
Work Stream 9 - Programme work for Phase 2	Work programme for Phase 2 – project plan and supporting documentation	Still to start

Table 1 Summary of Active Work Streams

2 ACTIVE WORK STREAM SUMMARIES

2.1 Estimated progress

For all active work streams the following table shows the estimated progress this month and the overall progress to date including the estimated percentage completion and key milestones achieved or tasks completed or a brief account of progress.

Work Stream	% completion last month	% completion this month	Key milestones achieved or tasks completed or brief account of progress	
WS1	50	100	Complete	
WS2.0	20	50	 Consortium meeting to plan key stakeholder interviews held on 8 April. Split into two areas; 1. questions covering Imperials data request for the WS2 quantative analysis and 2. questions for qualatative analysis required later in WS 2. Area 1, Peter Twomey has collected most DNO RRP date required and anoymised this. Peter has also set up a file tranfer site due to the file sizes and test that the consortium can access data. The consortium are still awating the full data pack to be up loaded to the ENWL file transfer site. Area 2 the consortium has drafted a questionaire for qualitative analysis aimed at those covering regulation, planning and operation at the DNOs. The questionaire was issued to DNOs, Ofgem and DECC and other DCRP P2 WG members on 11 May Questionaires have been returned by ENWL and NGET. Interviews have been held with ENWL, NGET, DECC and Ofgem. Questionaires have still to be returned by SPEN, SSE, NGg, UKPN and WPD. Dates for interview have been agreed with UKPN and NPg. Dates for interviews have still to be provided agreed with SPEN, SSE and WPD. Area 2 a questionaire was developed with further guidance to stakeholders outside of the DNOs, Ofgem, NGET and DECC and was sent out to these stakeholders on 4 June with a return date of 19 June. 	

		1	
WS 2.1	70	75	 Imperial College is making good progress setting up the various models required for the various WS2 analysis. Imperial College is now engaged with DNOs in collecting data for the WS2 quantative analysis as discussed above. On 8th April the consortium discussed, agreed and documented the high level options for P2/6 replacement to be analysied using the assessment framework. Progress has been made on the establising a set of characteristic network designs. Finalised model for generation driven network investment. Prepared technical questions for the workshop. Good progress has been made on reviewing recent studies on quntifying costs of interruptions and risk measures. Good progress has been made on the modelling of change in load diversity with the duration of outages.
WS2.2	40	40	 duration of outages. Progress has been made on specifying the relevant case studies for estimating the risk profile in present networks which will be carried out once data gathering is completed. Good progress has been made on selection of initial samples of real distribution networks Tests are carried out on an urban network
WS2.3	20	30	Good progress has been made on specifying the relevant case studies for the estimation of the risk associated with asset replacement, common mode failures and high impact events. Initial cases studies are carried out.
WS2.4	20	30	 Good progress has been made on conducting illustrative case studies using non-network solutions i.e. responsive demand and energy storage. Good progress identifying alternative approaches to assessment of security contribution of non-network solutions has been made. Completed set of initial case studies.
WS2.5	20	30	 Good progress made on identification of exposure to common mode failures associated with ICT infrastructure. Other aspects of this WS are covered in the questionaire and interviews presently being developed in WS2.0 Area 2. Initial case studies have been carrid out

WS2.6	15	25	Good progress has been made on establising relevant cases for assessing the impact of loss inclussive design on reliability.
WS2.7	20	20	We have drafted a memo describing the structure, scope and likely content of the Workstream 2.7 report. We would welcome feedback from the working group on this note, either on the call on 27 May, at stakeholder interviews, or subsequently by email. A few responses have been received from WG members. We would ask others to comment by email as well.
WS2.9	0	5	Framework and introduction for the WS 2 options report which pulls together the outputs from the other WS2 sub-work streams written.

Table 2 Summary of active works tream progress

2.2 Forecast time to complete and deliver

The following table shows the forecast time to complete and deliver the active work streams.

Work Stream	Forecast calander	Comments
WS1	weeks to complete Completed on 1 May 2015.	
WS2	12 (Plus 4 weeks due to data delays.)	Work is ongoing on WS2.0 and WS2.1 to set up the various models that will be required. WS2 was programmed for completion on 7 th August 2015. Due to extensive delays in receiving data from other DCRP parties we estimate that WS2 will now be completed by 4th September 2015, a four week delay. This will have an estimated 5 week delay on the overall P2 Phase 1 review programme, see revised programme in Appendix A.
WS2.0	7 (Plus 5 weeks overall due to slow progress getting questionnaire responses and interview dates with DNOs)	This includes covering the Area 1 data questions for the quantative WS2 analysis which is ongoing and the Area 2 qualatative analysis questionaires and followup 1:1 calls with DNOs and possibley others.
WS2.1	4	Following data collection selected case studies will be carried out for illustrative purposes and communication.
WS2.2	8	Following data collection relevant case studies will be carried out for illustrative purposes and

		communication.
WS2.3	10	Four additional weeks are expected to be required for completion.
WS2.4	10	Four additional weeks are expected to be required for completion.
WS2.5	10	Four additional weeks are expected to be required for completion.
WS2.6	10	Four additional weeks are expected to be required to complete this.
WS2.7	10	We envisage circulating a draft report ahead of the August working group meeting.
WS2.9	12	This is presenly being delayed by delays to other WS2 sub work streams discussed above.

Table 3 Summary of active work stream forecast time to complete

2.3 Issues encountered

The following table shows the issues encountered and estimated delay caused for each active work stream along with potential options to mitigate delays where possible.

Work Stream	Issue encountered	Delay caused	Proposed mitigation	Forecast reduction in delay due to mitigation
WS2	WS2.0 DNO data collection and interviews.	Delay to WS 2 is now estimated at 4 weeks. Overall P2 review programme revised to add 5 weeks for WS 2.	Consortium continuing to work with ENA to get some DNO members to complete questionnaires and agree interview dates (Area 2 data). Consortium continuing to liaise with ENA and Peter Twomey of ENWL regarding Area 1 RRP data provision (now expected week starting 15 June).	Cannot be estimated.

Table 4 Summary of active work stream issues encountered

2.4 Forecast of potential issues or risks

A forecast of potential issues or risks impacting on delivery timescales, outputs agreed or quality of outputs for each active work stream are recorded in the following table. The table also contains potential options to mitigate any such impacts where possible.

Work Stream	Forecast Issue/Risk	Impact of Risk/Issue	Proposed mitigation	Forecast reduction in impact due to mitigation
WS2	Still struggling to agree and receive response to data request list submitted to the DCRP P2 WG on 25/2/2015	Has started to impact on some of the WS2 sub workstreams Overall delay on programme for WS 2 is 4 weeks and on the overall programme is	Consortium continuing to work with ENA to get some DNO members to complete questionnaires and agree interview dates (Area 2 data). Consortium continuing to liaise with ENA and Peter Twomey of ENWL regarding Area 1 RRP data provision (now expected week staring 15 June).	Cannot be estimated, but is likely to limit what could have been much longer delays if action was not taken.
WS2	Confidentiality issues with DNO data.	5 weeks. Would impact to further delay WS2 and overall P2 programme if confidentiality issues were introduced.	This may be an issue with RRP data if it is required to go into the public domain. Peter Twomey of ENWL is in the process of anonymising the RRP data from all six DNOs to avoid confidentiality issues.	None as yet
WS2	CIRED week	Imperial team is at CIRED from 15-19/06	This week is already included in the latest forecast time to completed and deliver.	

Table 5 Summary of active work stream forecast potential issues or risks

2.5 Forecast of any changes in scope

The following table includes a forecast of any pontential changes in scope for each active work that would require discussions with the DCRP P2 WG regarding an agreed change in scope or a budget variation.

Work Stream	Forecast scope change	Reason for change	Cost of potential scope change
WS1	None to report		
WS2	None to report		

Table 6 Summary of active work stream forecast scope changes

2.6 Target progress for next month

The following table includes a forecast of the intended progress to be made in the next month based on the progress so far.

Work Stream	Planned work targets
WS1	Completed.
WS2.0	Complete 1:1 interviews with DNOs.
	Complete interviews for qualatative analysis interviews (Area 2).
	Start collation of interview responses from all stakeholders and feed into WS2.9
	options development process.
WS2.1	Complete set of relevant data.
	Populate key network types with corresponding range of reliability parameters of
	network assets needed to assess the network reliability performance.
	Carry out selected case studies.
WS2.2	Select initial samples of real rural distribution networks.
	Evaluate estimated networks reliability performances for initial samples of real and
	representative distribution networks.
WS2.3	Agree characteristic scenarios for asset replacement, common-mode failures and
	high impact events.
	Carry out initial case studies.
WS2.4	Continue working on identification of alternative approaches for contribution
	assessment in case where DER provides other system support services.
WS2.5	Continue working on identification of exposure to common mode failures associated
	with ICT infrastructure.
	The consortium questionaire and interviews will cover other relevent areas of this
	WS (see WS 2.0 Area 2).
WS2.6	Continue working to establish relevant cases and corresponding data for assessing
	the impact of loss inclusive design on reliability.
WS2.7	Over the next month, NERA will continue development of the WS2.7 report, with a
	view to circulating it ahead of the August working group meeting. Hence, we do not
	envisage delivering any further outputs in the next month, though we may raise
	issues for discussion at the July meeting if we consider it helpful.
WS2.9	Circulate WS2.9 report framework to consortium members for review. Fully develop
	framework and fleshout some sections with text.

Table 7 Summary of target progress for next month.

3 P2 REVIEW PROJECT PROGRAMME

Based on progress to date and forecast completion times, the latest forecast delivery programme is included in Appendix A. Appendix A includes the original programme at the commencement of the project in January 2015 along with the revised programme agreed between the consortium members on 19 June. The revised programme reflects the data gathering issues encountered to date any aligns with the WS 2 sub-work stream forecast weeks to complete in Table 3.

4 OUTSTANDING ACTIONS REGISTER

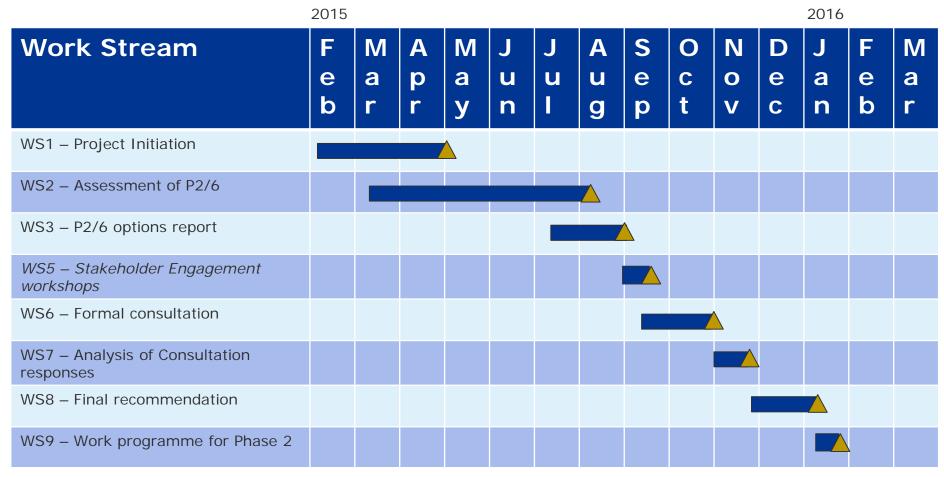
The outstanding actions register is provided in Appendix B.

5 RISK REGISTER

The latest generic register of risks to programme delivery and mitigating controls is provided in Appendix C. The detailed risks and mitigation measures are provided in Table 5.

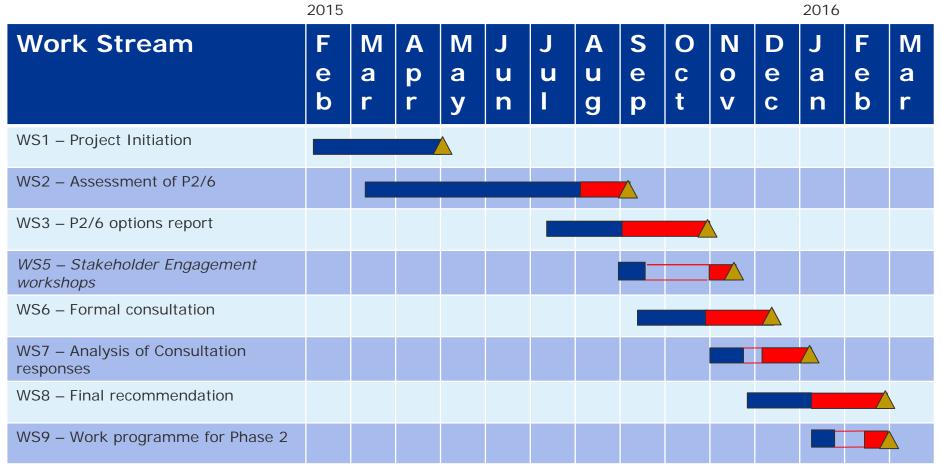
Appendix A Project Programme

The original (January 2015) high level summary programme is shown below.



= defined deliverable

The programme review carried out on June 19 2015 has resulted in the revised programme below.



= defined deliverable

Appendix B Outstanding Actions Register

Action/Responsible/Due Date

What has changed over the last 18 months

3 Smart Grid Forum WS 7 project, DCRP P2 WG to provide Consortium with update on project outputs that could have an impact on the P2 review.

Based on meeting on 26 Feb 2015 MK is to provide the presently available report setting out the WS7 project, followed by a soon to be published report first WS7 report setting out the scope.

The available WS7 report was provided by ENA on 2 March 2015. **Action complete**.

The first WS7 report to be provided by DCRP P2 WG by 30 March 2015 subject to report release date. Ongoing MK to check the Consortium has this. (Post meeting note, MK forwarded reports during the meeting, action complete).

Consortium to consider impact of WS7 information provided by DCRP P2 WG on P2 review. WS 2 activity for NERA and Imperial.

GS, RD /Consortium PM/during workstream 2.

DCRP P2 WG is to advise any other party that they would wish to peer review the modelling inputs and outputs in anticipation of a public consultation on proposals that may be justified (in part) by evidence produced using Imperial's technoeconomic model.

DCRP P2 WG/DS/ by 23 Feb 2015.

2.3 DS to provide the consortium with the names and contact details of the key individuals at each DNO who should be interviewed directly as part of work stream 2 (i.e. individuals responsible for setting policy for the DNO's network planning teams to follow).

Outstanding (agreed on 27/3/2015 to leave this open for further discussion with Ofgem would raised this item) SC to discuss this with Gareth Evens of Ofgem.

DS/ DS/ 23 March 2015

Ongoing

Ongoing in collaboration with Consortium (awaiting WPD names). The Consortium to assume Tony Berndes is the only contact for time being.

Action/Responsible/Due Date

	Progress			
5.1	DNOs to get the missing RRP data for QoS to Peter Twomey of ENWL ASAP to allow him to send the	Abo,AC,Abe,TB,WM/DS/29 May 2015.		
	full anonymised RRP data pack to the consortium			
	by 29 may.			
5.2	DS to speak with AC of NPG regarding the need to get the missing RRP data for QoS to Peter Twomey	DS/DS/28 June 2015		
	of ENWL ASAP, as AC was not on the call			
5.3	DNOs to complete the P2 questionnaire and return	Abo,AC,Abe,TB,WM/DS/29 May 2015.		
	to ABi prior their interviews. All DNOs to arrange interview dates with ABi ASAP.	ENWL completed. NPg and UKPN interview dates agreed.		

5.7	The DCRP P2 WG members are to provide there written feedback on RD's MEMO on the WS2.7	All/DS/5 June 2015 (partially complete)
	report.	
5.8	DS to establish if the July 29 meeting can be moved to accommodate Goran Strbac's request.	DS/DS/12 June 2015 (Confirmed meeting not
	moved to accommodate doran strbac's request.	to be moved, action complete)
5.9	DS to establish if the November 25 meeting can be moved to accommodate Steve Cox's request.	DS/DS/12 June 2015

Appendix C Risk Register

Use this page to register all risk factors currently known. Use a scale of 1- 5 (highest) to indicate probability and consequence for each factor.		Probability	Consequence	Risk score = P x C	k score last period	Sort list to id	entify top 5 risks	
			<u>+</u>	Š.	쭚	Risk X		
Id 🔽	RBS <u>▼</u>	Risk description	P▼	C 🔽	Score - ↓	Last perioc ▼	Action	Responsible
3	Project	Timescales slip on work streams and project end date or work	3	4	12		PM will work with ENA and team to	PM
	Management	cannot be completed within timescales					revise the programme where possible.	
4	Technical	Work stream outputs do not deliver the expected results	2	4	8		PM and team will work with ENA to	PM
							address any such issues as they occur.	
5	Technical	Data is delayed or unavailable (for techno-economic model)	4	3	12			РМ
							aware of issues. PM to assist with data from stakeholders.	
6	Project	Working together is difficult as partners are physically remote	2	2	4			РМ
	Management						consortium partners to review any	
			<u> </u>				issues.	
1	External	Access to Stakeholders	1	3	3		Liaise closely with ENA, make sure	РМ
							process is transparent (robust stakeholder engagement process)	
7	Organizational	Insufficient resource or expertise within consortium to undertake work	1	3	3		Team includes duplicate resources	РМ

Risk register embedded file, used for amendments.



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