

ENGINEERING RECOMMENDATION P2 REVIEW

# Monthly Progress Report to 24 May 2015

DCRP P2 WG

**Report No.:** 16011094/PROG 4, Rev. 001

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Project name:	Engineering Recommendation P2 Review	DNV GL Energy Advisory
Report title:	Monthly Progress Report to 24 May 2015	PSP UK
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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:

- 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 risk register.

The programmed dates for future progress reports are summarised below:

No.	DCRP P2 WG Meeting Date	Issue Monthly Progress Report
4	Wednesday 27 May	Friday 29 May
5	Monday 22 June	Friday 26 June
6	Wednesday 29 July	Friday 4 Aug
7	Wednesday 19 Aug	Friday 26 Aug
8	Wednesday 23 Sept	Friday 30 Sept
9	Wednesday 27 Oct	Friday 30 Oct
10	Wednesday 25 Nov	Friday 30 Nov
11	Friday 18 Dec	Friday 23 Dec

Rev. No.	Date	Reason for Issue	Prepared by
001	29/5/2015	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
<b>Work Stream 1</b> -Project Initiation	Issue of initiation paper	Completed.
<b>Work Stream 2</b> - Assessment of P2/6 and Identifying Options for Reform		Ongoing
<b>WS2.0</b> Stakeholder interviews (intimate)	A summary report covering key highlights from the stakeholder engagement/interview activities.	Ongoing
<b>WS2.1</b> Framework for assessing security performance and measures and characteristic network designs	Framework for the development of future network design standards	Ongoing
<b>WS2.2</b> 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
<b>WS2.3</b> Risk associated with asset replacement, common mode failures and high impact events	Summary report that will feed into the 'options' milestone report	Ongoing
<b>WS2.4</b> Impact of Smart Grid technologies on service quality risk profile	Summary report that will feed into the 'options' milestone report	Ongoing
<b>WS2.5</b> Assessment of impacts of alternative control and operation strategies on security of supply	Summary report that will feed into the 'options' milestone report	Ongoing
<b>WS2.6.</b> Loss inclusive design of distribution networks and impact on security of supply	Summary report that will feed into the 'options' milestone report	Started
<b>WS2.7:</b> 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.
<b>WS2.9:</b> 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	Still to start
<b>Work Stream 3</b> - P2/6 Options Report	P2/6 Options Report	Still to start
<b>Work Stream 5</b> Stakeholder Engagement Report: Workshop	Stakeholder Workshop Report.	Still to start
<b>Work Stream 6</b> - Formal Strategy Consultation for P2/6	Formal Strategy Consultation Paper for P2/6	Still to start
<b>Work Stream 7</b> – 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
<b>Work Stream 8</b> - Phase 1 report	Phase 1 final report	Still to start
<b>Work Stream 9</b> - 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	<ul style="list-style-type: none"> <li>Complete</li> </ul>
WS2.0	20	30	<ul style="list-style-type: none"> <li>Consortium meeting to plan key stakeholder interviews held on 8 April. Split into two areas; 1. questions covering Imperials data request for the WS2 quantitative analysis and 2. questions for qualitative analysis required later in WS 2.</li> <li>Area 1, after various conference calls and the DCRP P2 WG meeting on 1 May it was agreed that the RRP data was suitable and all DNOs are to provide to Peter Twomey to anonymise prior to providing the consortium with the data.</li> <li>Area 2 the consortium has drafted a questionnaire for qualitative analysis aimed at those covering regulation, planning and operation at the DNOs. This is being reviewed issued to identified staff at DNOs. Dates for interviews around the questionnaire are in place for some stakeholders with some early interviews carried out.</li> </ul>
WS 2.1	60	70	<ul style="list-style-type: none"> <li>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 quantitative analysis as discussed above.</li> <li>On 8<sup>th</sup> April the consortium discussed, agreed and documented the high level options for P2/6 replacement to be analysed using the assessment framework.</li> <li>Progress has been made on the establishing a set of characteristic network designs.</li> <li>Finalised model for generation driven network investment.</li> <li>Prepared technical questions for the workshop.</li> </ul>

			<ul style="list-style-type: none"> <li>• Good progress has been made on reviewing recent studies on quantifying costs of interruptions and risk measures.</li> <li>• Progress has been made on the modelling of change in load diversity with the duration of outages.</li> </ul>
WS2.2	15	40	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Good progress has been made on selection of initial samples of real distribution networks</li> <li>• Tests are carried out on an urban network</li> </ul>
WS2.3	15	20	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
WS2.4	20	20	<ul style="list-style-type: none"> <li>• Good progress has been made on conducting illustrative case studies using non-network solutions i.e. responsive demand and energy storage.</li> <li>• Good progress identifying alternative approaches to assessment of security contribution of non-network solutions has been made.</li> <li>• Initial case studies have been carried out.</li> </ul>
WS2.5	15	20	<ul style="list-style-type: none"> <li>• Progress made on identification of exposure to common mode failures associated with ICT infrastructure.</li> <li>• Other aspects of this WS are covered in the questionnaire and interviews presently being developed in WS2.0 Area 2.</li> <li>• Initial case studies have been carried out</li> </ul>
WS2.6	0	15	<ul style="list-style-type: none"> <li>• Progress has been made on establishing relevant cases for assessing the impact of loss inclusive design on reliability.</li> </ul>
WS2.7	0	20	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

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 calendar weeks to complete	Comments
WS1	Completed on 1 May 2015.	
WS2	14	Work is ongoing on WS2.0 and WS2.1 to set up the various models that will be required. WS2 is programmed for completion on 7 <sup>th</sup> August 2015.
WS2.0	2	This includes covering the Area 1 data questions for the quantitative WS2 analysis which is ongoing and the Area 2 qualitative analysis questionnaires and followup 1:1 calls with DNOs and possibly others.
WS2.1	3	Following data collection selected case studies will be carried out for illustrative purposes and communication. Three additional weeks are requested to complete this. No impact on the expected completion of overall WS2.
WS2.2	5	Following data collection relevant case studies will be carried out for illustrative purposes and communication. Three additional weeks are requested to complete this. No impact on the expected completion of overall WS2.
WS2.3	6	Expected to be completed as planned
WS2.4	7	Expected to be completed as planned
WS2.5	9	Expected to be completed as planned
WS2.6	8	Expected to be completed as planned
WS2.7	6	We envisage circulating a draft report ahead of the July working group meeting.

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.	None.	Imperial is continuing to work with DNOs to gather data for quantitative analysis (Area 1). The questionnaire for interviews with DNO members covering regulation, planning and operation (Area 2 qualitative	None required at present.



			analysis) has been issued and a substantial number of 1:1 follow up calls are in the diary for late May early June.	
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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	Could start to impact on some of the WS2 sub workstreams  Delay of 5 weeks is estimated on WS2.1. Delay of 2 weeks is estimated on WS2.2.	Fortnightly conference calls set up for DNO discussions on this topic. Way forward using RRP agreed at meeting on 1 May.	Revised approach to data gathering based on RRP to assist DNO's provide data efficiently in a common format.
WS2	Confidentiality issues with DNO data.	Could start to impact on some of the WS2 sub workstreams	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	None as yet

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 potential 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 Area 1 1:1 interviews with DNOs. Complete interviews for qualitative analysis interviews (Area 2). Send out questionnaire to wider stakeholders (non DNO).
WS2.1	Critical review of recent studies on quantifying costs of interruptions and risk measures. 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. DS2030 workshop informed that diversity of load changes with duration of outage and changes in rating of cables. Modelling will be extended to include these effects. Carry out selected case studies.
WS2.2	Select initial samples of real 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.
WS2.4	Complete set of initial case studies demonstrating the impact of distributed energy resources (DER) on security of supply. 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 questionnaire and interviews will cover other relevant 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 July 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 June meeting if we consider it helpful.

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.



## 4 OUTSTANDING ACTIONS REGISTER

The outstanding actions register is provided in Appendix B.



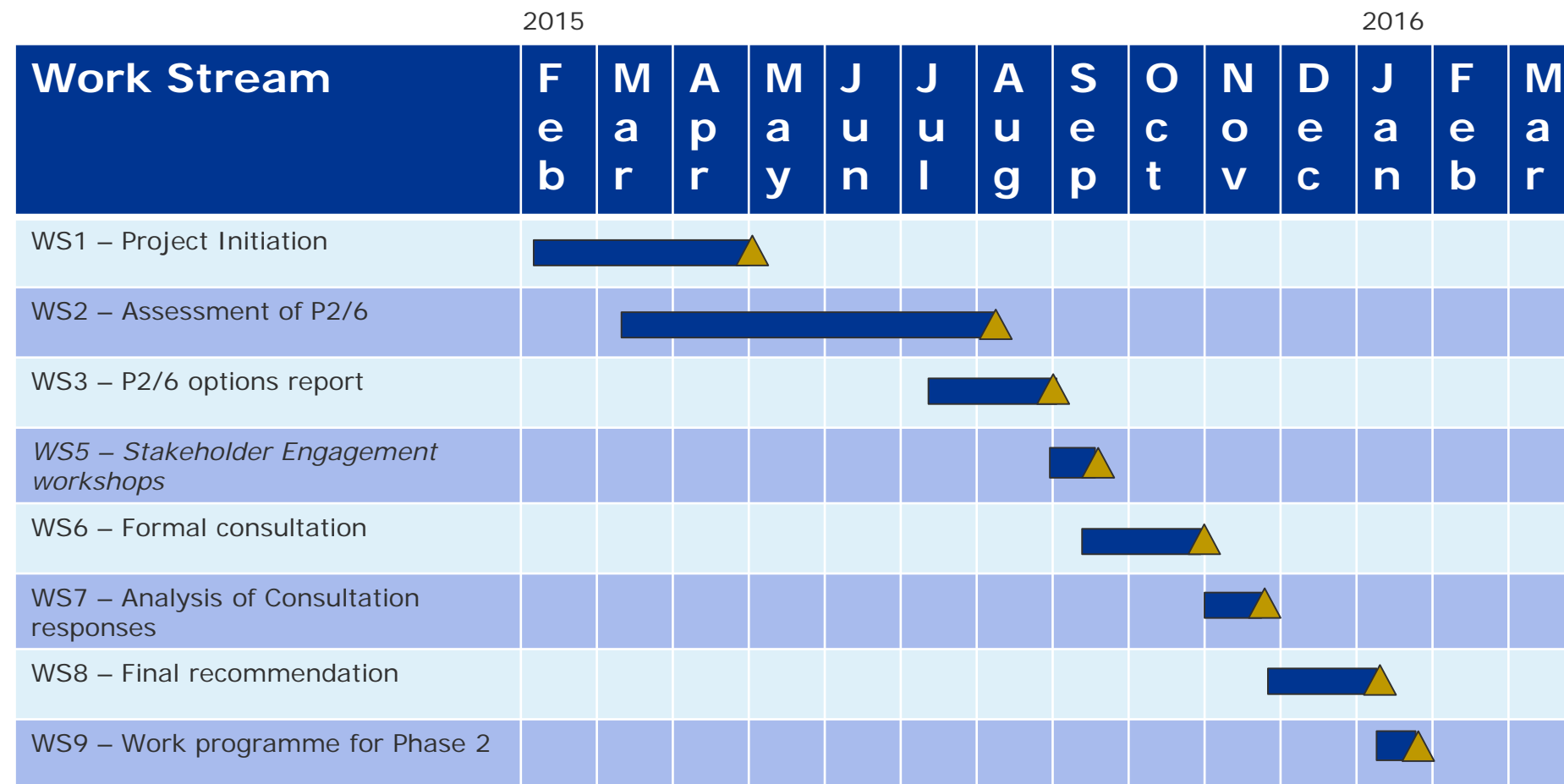
## 5 RISK REGISTER

The latest register of risks to programme delivery and mitigating controls is provided in Appendix C.



**Appendix A      Project Programme**

The high level summary programme is shown below.



▲ = defined deliverable





## **Appendix B      Outstanding Actions Register**





**Action/Responsible/Due Date**

**Recap on the key P2 study issues**

**What has changed over the last 18 months**

1	Consortium to consider the impact of relevant LCNF projects now they are more mature, special examples could include Electricity North West 's C2C project and DSR related projects in general on the P2 review. WS 2 activity for NERA and Imperial.	GS, RD/Consortium PM/during workstream 2.  <b>Ongoing</b>
2	RIO price control period commences with a new interruption incentive scheme, etc. Consortium to consider impacts during WS 2 techno-economic modelling. WS 2 activity for NERA and Imperial	GS, RD /Consortium PM/during workstream 2.  <b>Ongoing</b>
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. <b>Action complete.</b>  The first WS7 report to be provided by DCRP P2 WG by 30 March 2015 subject to report release date. <b>Ongoing</b>
	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.  <b>Ongoing</b>
4	Losses has been raised as a key issue by Ofgem driven by EU directives. Consortium to review and include in techno-economic assessments. WS 2 activity for NERA and Imperial.	GS, RD /Consortium PM/during workstream 2.  <b>Ongoing</b>
5	Any issues relating to supply security in the latest ENTSO-E 10 year plan should be considered for potential impact on the P2 review. WS 2 activity for NERA and Imperial.	GS, RD /Consortium PM/during workstream 2.  <b>Ongoing</b>

**Consortium proposals to conduct the P2 review**

11	DCRP P2 WG is to advise any other party that they would wish to peer review the modelling inputs and out puts in anticipation of a public consultation on proposals that may be justified (in part) by evidence produced using Imperial's techno-economic model.	DCRP P2 WG/DS/ by 23 Feb 2015.  <b>Outstanding</b> (agreed on 27/3/2015 to leave this open for further discussion with Ofgem would raised this item)
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**Overall governance**

12	Consortium to ensure all corespondance with DCRP P2 WG comes from the Consortium PM to David	All consortium members/Consortium PM/ <b>ongoing.</b>
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**Action/Responsible/Due Date**

Spillet as the single points of contact in each organisation.	
2.1 Regarding actions not carried out by the DCRP P2 WG, CM is to chase DS to resolve these issues.	CM/CM/ <b>Ongoing</b>
<b>Stakeholder Engagement</b>	
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).	DS/ DS/ 23 March 2015  <b>Ongoing in collaboration with Consortium (awaiting WPD names)</b>

**Action/Responsible/Due Date**

<b>DNO data request for WS2 quantitative analysis</b>	
4.1 GS to ensure Imperial complete the review of the NPG RRP and report back on suitability of data and identify the work books and sheets required.	GS/GS/6 May 2015. <b>Complete</b> (GS provided work books and data sheets required in his email of 5 May 2015. GS also confirmed at the conference call meeting on 12 May that the RRP provides all the data requirements, but would require a set of data over five years for each of the six GB DNOs)
4.2 MK to assess how data from RRP from all six DNOs could be anonymised.	MK/MK/12 May 2015 (Noted from conference call on 12 May that Peter Twomey of ENWL has been tasked with anonymising the RRP data from each of the DNOs and sending on to the consortium)
4.3 DS to ask Ofgem if they could provide the Consortium with their RRP data.	DS/DS/ 12 May 2015 (Post meeting note. Based on the discussions on the conference call of 12 May, this action may not be required, this will be assessed again at a later date)



## **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.

Sort list to identify top 5 risks

Id	RBS	Risk description	P	C	Score	Last period	Action	Responsible
3	Project Management	Timescales slip on work streams and project end date or work cannot be completed within timescales	3	4	12		PM will work with ENA and team to revise the programme where possible.	PM
4	Technical	Work stream outputs do not deliver the expected results	2	4	8		PM and team will work with ENA to address any such issues as they occur.	PM
5	Technical	Data is delayed or unavailable (for techno-economic model)	2	3	6		All consortium members to make PM aware of issues. PM to assist with data from stakeholders.	PM
6	Project Management	Working together is difficult as partners are physically remote	2	2	4		PM to hold regular meetings with consortium partners to review any issues.	PM
1	External	Access to Stakeholders	1	3	3		Liaise closely with ENA, make sure process is transparent (robust stakeholder engagement process)	PM
7	Organizational	Insufficient resource or expertise within consortium to undertake work	1	3	3		Team includes duplicate resources	PM
8			0	0	0			

Risk register embedded file, used for amendments.



Risk Register V  
001.xlsx





## About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification and technical assurance along with software and independent expert advisory services to the maritime, oil and gas, and energy industries. We also provide certification services to customers across a wide range of industries. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping our customers make the world safer, smarter and greener.