UK Power Networks

Business plan (2015 to 2023)

Annex 19: Stakeholder Engagement Process

March 2014

"A reliable... an innovative... and the lowest price electricity distribution group."

UK Power Networks
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This annex has been updated to reflect UK Power Networks' March 2014 business plan. We have a tracked change version for the purpose of informing Ofgem of all revisions to the July 2013 business plan, should this be required.

1 Executive summary

The UK Power Networks business plan has been developed following extensive stakeholder engagement. Our engagement with stakeholders is a key component of the business plan development process and our on-going business operations.

The plan is based on a 30 month stakeholder engagement programme

In preparation for the RIIO-ED1 Business Plan, we commenced our stakeholder engagement activities in early 2011. The programme of engagement has involved three core elements; a research and strategy element, followed by a development and testing component and then a feedback and implementation phase. The diagram below summarises this approach.

The feedback phase is an important element of our stakeholder engagement. Our priority has been to ensure UK Power Networks implements what we call "close the loop" engagement on all its activities. This means we have placed high priority on ensuring action has been taken on all issues raised by stakeholders. It has also been important to demonstrate how the feedback from stakeholder has materially affected our business plan.

UK Power Networks was the first DNO to produce a draft RIIO-ED1 Business Plan in November 2012. This was followed by our:

- Business plan update in April 2013
- July 2013 submitted plan
- March 2014 revised plans (resubmission)

Through this process we have been able to demonstrate:

- How the initial stakeholder research and feedback was included in November draft business plan
- The further refinements and adjustments we have made in the April 2013 update following additional input from stakeholders, predominantly feedback from the Critical Friends Panel sessions
- How all our stakeholder engagement has impacted on the final business plan

In adopting this process, we have provided most, if not all, stakeholders an opportunity to contribute to the future direction of UK Power Networks.

The purpose and structure of this document

This document sets out all the stakeholder engagement activity UK Power Networks has undertaken in the development of its RIIO-EDI business plan. It provides a summary of the overall approach and then provides detail on each of the specific activities in the strategy and planning phases and the development and implementation phases. Finally, the document provides a summary of how all our engagement activity and feed-back from stakeholders has materially affected the business plan. Some of the key strategies and activities include:

(i) Strategy, preparation and planning phase

- Outlines the overall stakeholder engagement strategy and the stakeholder mapping activities to ensure we have covered all possible stakeholder groups
- The outputs development and consultation phase to ensure the key output areas and the outcomes to be delivered in each area align with the priorities of stakeholders
- Early development of planning scenarios and assumptions to test the viability of our scenarios, particularly the low carbon assumptions, at an early stage with stakeholders
- Undertaking comprehensive willingness to pay survey to obtain specific qualitative and quantitative on the high and low priority issues relevant to stakeholders and their willingness to pay for improved services across a range of output categories
- All these early activities fed into the November 2012 draft business plan

(ii) Developing, testing and delivering outcomes phase

- Details all the activities in our Critical Friends Panel sessions where 12 meetings were conducted with a variety of informed stakeholder over a 9 month period. The purpose was to outline the key initiatives and challenges with each output and to amend these initiatives based on feedback from stakeholders
- Outlines the issues discussed in the specific London infrastructure engagement sessions which were undertaken with the objective of ensuring the UK's main commercial centre provides world class electricity infrastructure, consistent with London's status as a leading world commercial centre
- Provides information on the numerous specific issues stakeholder engagement sessions, many of which have been conducted following specific requests from stakeholders in our other forums
- Describes how our internal company engagement has contributed to the business plan and the future planned engagement activities

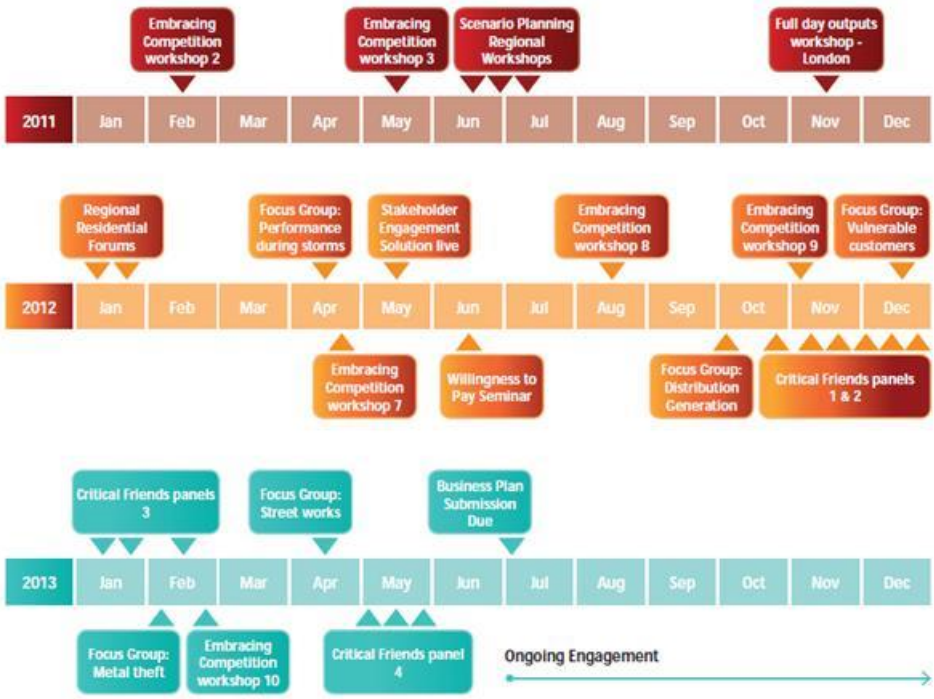
All these activities have been critical in developing our well justified business plan. Importantly, stakeholder engagement is an on-going process and a number of our key activities such as the Critical Friends Panels and specific issue engagement will continue beyond finalisation of the Business Plan.

Some key future engagement activities include conducting sessions on the UK Power Networks transformation programme and appointing independent Chairs to the Critical Friends panels in each of the 3 DNO licence areas.

2 The overall approach

Over the past two years, UK Power Networks has undertaken a number of activities designed to communicate effectively with a range of stakeholders, improve our business services and help us develop our business plan for the next eight years.

The business plan we are submitting to Ofgem as part of RIIO-ED1 is the product of the most extensive stakeholder engagement process ever undertaken by the organisation. The extent of our engagement with stakeholders and the number of events is illustrated in the chart below:



We have opted for a comprehensive approach that can be conceptually divided into three phases:

Research: In 2011/12, we conducted Willingness to Pay qualitative and quantitative research. In the context of that research, we held targeted discussions and interviews with businesses and domestic customers. We also sought views and input on our planning scenarios through regional workshops.

Targeted engagement: We rolled out the Critical Friends Stakeholder Engagement Panel across all three of our DNOs in the second half of 2012 and the first months of 2013, after we presented the results of our Willingness to Pay research in a seminar in June. Critical Friends came to comprise the core of our consultation programme for the Business Plan 2015-23, with discussions and feedback in the open forums subsequently giving rise to new engagement sessions, such as metal theft and vulnerable customers.

Feedback implementation: We sought to capture all issues raised by stakeholders during the discussions and in subsequent correspondence with us through an internal log of actions. We ensured that all issues raised by stakeholders were examined and responded to either in reports that we produced post-engagement or through individual communication (emails, meetings, etc.).

The phases overlapped somewhat in time – for instance, as we were preparing the content for Panel 3 sessions, we were implementing feedback from Panels 1 and 2. This created a 'virtuous cycle' in that we tried to ensure that the issues raised in, say, Panel 1 received additional attention in subsequent panels and priority focus groups.

We acknowledge the right of our stakeholders to be heard and we recognise that, as an organisation that is seeking to achieve more equitable decision-making, we have a responsibility to listen to them.

We therefore took every opportunity to raise awareness of the draft Business Plan, which took the form of a large main document and a regional summary for each DNO licence area.

- We placed the Business Plan on our website and created a dedicated online consultation page, inviting all interested parties to tell us their views. Online consultation was open from 1st December 2012 to 4th February 2013, and helped us engage with people who otherwise would not have been able to contribute (for example, due to time constraints).
- We distributed hard copies (both the main and by DNO licence area) at Critical Friends panel sessions and the London Infrastructure Forum.
- We presented at a high-profile conference held by Major Energy Users Council. To reach a large number of delegates, we organised a stand at the venue, distributing hard copies of the Business Plan and inviting delegates to tell us their views and/or attend our engagement events in May.
- At our Priority Issue events, we discussed how individual issues, such as metal theft, vulnerable customers, street works and Distributed Generation, fit into the RIIO-ED1 framework and how he feedback from the delegates will link in with our Business Plan.
- Through our London Infrastructure Forum, we have worked closely with planning authorities and economic development bodies to identify a number of issues specific to central London and ensure that our plans are aligned to what the city requires.
- When asked to organise a dedicated event for the City of London, we responded by hosting an event on 15 May and tailoring the presentation to the requirements of the audience comprised primarily of large developers and businesses.

We hope that the thematically thorough and multi-channelled approach to stakeholder engagement that we have adhered to throughout the consultation period has given most, if not all, of our numerous stakeholders an opportunity to contribute to the future direction of UK Power Networks over the next decade.

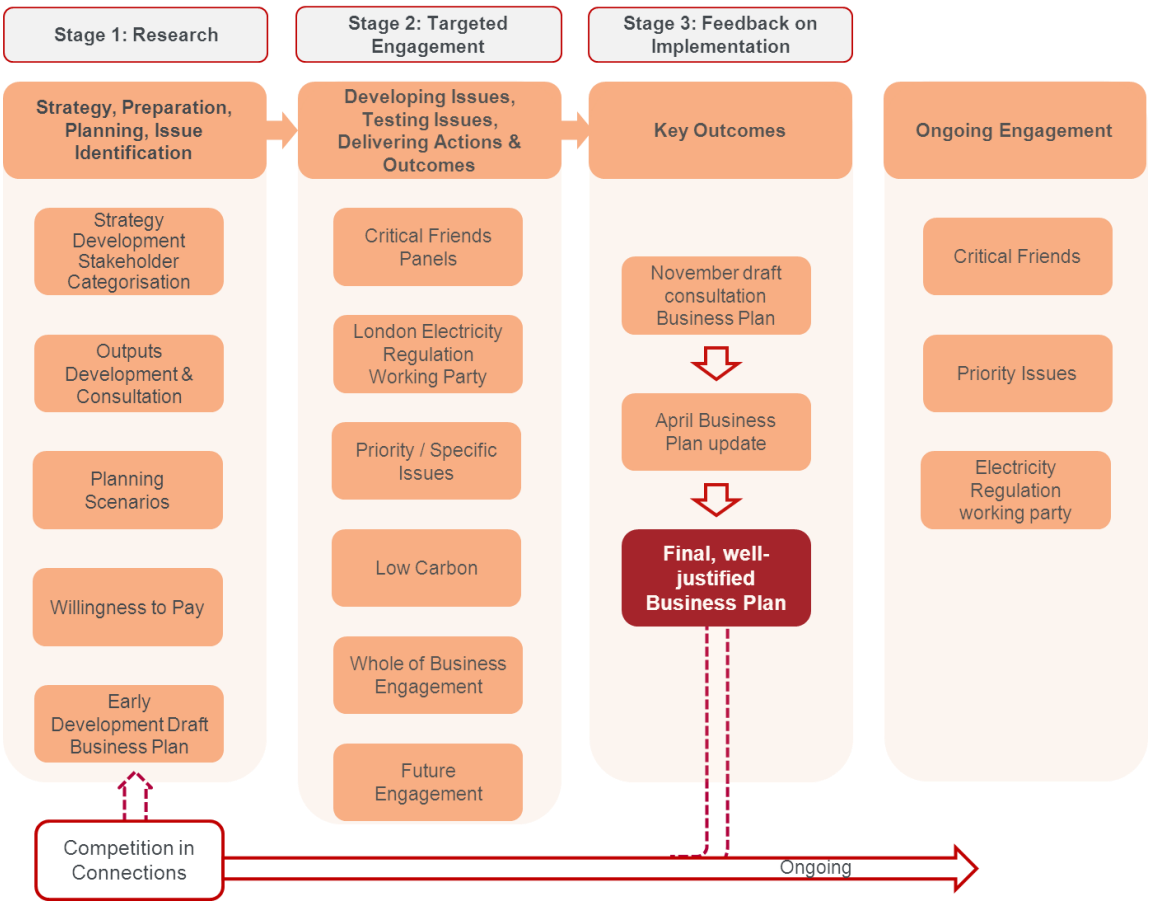
UK Power Networks has adopted a stakeholder-led approach to the development of its Business Plan for the period 2015-2023 (RIIO-ED1 period)

In consulting our stakeholders, we have sought to achieve two key objectives:

1. <u>Inform our stakeholders.</u> We did our best to answer as many of their questions as we could during the sessions. When and where more detailed answers were required, we followed up with written responses to the panellists.
2. <u>Evaluate and implement feedback.</u> We have acted immediately on the feedback that is practical to implement in the short term. We have used longer-term ideas and suggestions to inform our business plan for the next price control period (2015-23). In some instances, it has not been possible to act on the feedback from stakeholders and where this has occurred, we have clearly identified the issue and provided the rationale for not acting on the suggestion.

The process that we have followed in categorising stakeholders, collecting their views and taking all necessary action is presented in the diagram below. Ut details our early actions and events associated with strategy, planning and issue development. The secon phase involves issues associated with developing, testing and delivering our actions. Finally we incorporate all this stakeholder engagement into our well justifies business plan.

Critically, this is an ongoing process. The stakeholder engagement activity does not cease with the finalisation of the business plan. The stakeholder engagement activites undertaken in the development of this business plan represent best practice business management and are invaluable to the ongoing management of the UK Power Networks business.



Stakeholder views have materially altered our Business Plan

Our November 2012 draft business plan was based on extensive engagement with stakeholders during a number of processes (as identified above). Following release of the draft plan we received feedback from stakeholders, again through a range of forums. As a result of this feedback, UK Power Networks has made a number of changes to its business plan. We have:

Refined	• certain inputs to our planning scenarios, reducing the expected uptake of electric vehicles and volume of onshore wind connected to our network
	• the scope of investment required to respond to the decarbonisation of the UK economy is up from 0.4% to 0.5% of total regulated revenue
	• the scope of the DG Infrastructure required for timely and efficient connection of medium to large-scale generation with four projects developed to install a further 187MVA of capacity at a cost to consumers of £15.35m
Included	• additional secondary deliverables to underpin the primary outputs
	• additional investment at shareholders cost to improve the end-to-end customer connections process
	• £26.7m greater investment in automated technology to improve quality of electricity supply
	• £36m additional investment for changes to inspection and fault process to improve quality of electricity supplied in Central London
Further developed	• our innovation strategy using peer panel reviews
	• our initiatives supporting community engagement and the services we will provide to vulnerable and fuel poor customers

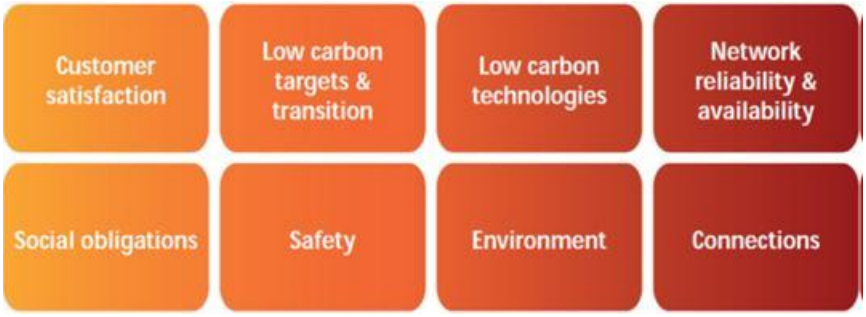
Chapter 13 of this document provides a comprehensive overview of how all our stakeholder engagement activity has affected the business plan.

Critical Friends Panels have been at the core of our stakeholder engagement

In consulting on our Business Plan, we have sought feedback in a targeted and systemic manner through Critical Friends panels, which we ran in each of our three DNO licence areas.

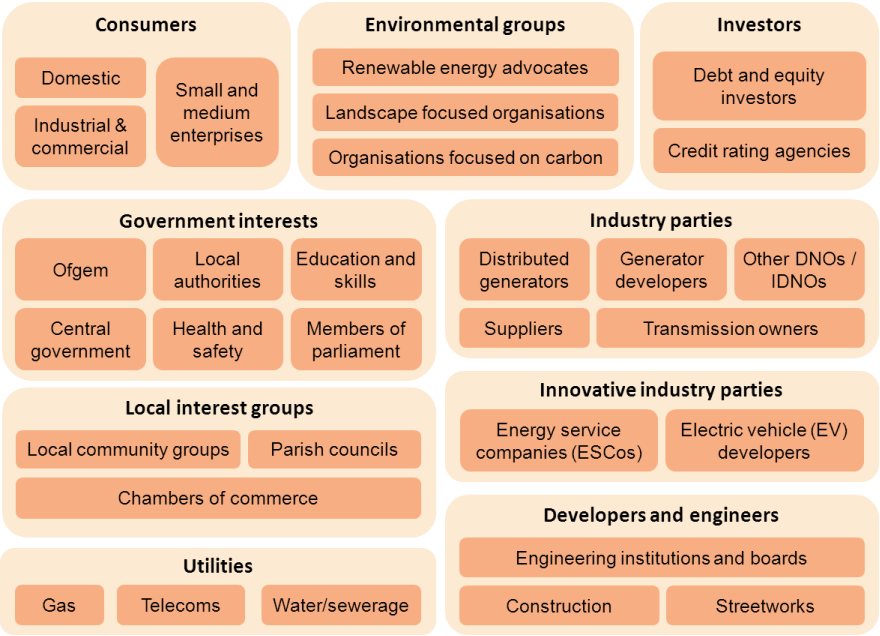
In the past eight months UK Power Networks has conducted twelve half-day Critical Friends panel sessions – i.e. four in each DNO area.

Within the framework of Critical Friends, we have consulted stakeholders on the following topics:



The issues have been based on the key output categories identified by Ofgem and our stakeholders. Panel 4 of the Critical Friends Panel focused on reviewing the progress we have made in implementing stakeholder feedback from the previous panels. We also introduced an Open Forum discussion on smart meters, which we knew from Panel 1, was of special interest to our audience.

We have sought to engage our numerous and diverse stakeholder groups, meaning the panels comprised of representatives from major energy users, industry participants, consumer groups, developers, the low carbon energy sector, local authorities and community organisations. A complete list of our stakeholder groups are demonstrated in the graphic below.



We sought to create a 'core' of panellists who would attend all four panel sessions and would be introduced to and consulted on our initiatives and plans in the primary output areas.

At the same time, we were aware that some people would have more narrow interests in selected subjects. We were keen to engage with them and invited them to the panel session that covered the subject of their interest or concern and was close to their geographic location.

We were delighted with the outcome. A number of delegates attended all three of our panels and we had healthy attendance from stakeholders who wanted to know more about a particular subject.

Specific issue engagement has addressed key challenges identified by our customers

Over the past 18 months UK Power Networks has conducted a number of stakeholder events based on issues identified as important by our customers.

The events to date have included a plethora of issues on what UK Power Networks can do better in relation to:

- our performance during and after storms
- vulnerable customers
- distributed generation
- metal theft
- street works
- Competition in Connections

These events have been important in connecting with niche customers and ensuring our Business Plan is relevant to their needs.

Our stakeholders have rated highly our efforts to identify additional issues which do not formally comprise Ofgem output categories but which are of importance to both UK Power Networks and selected groups of our stakeholders.

We believe that it is a sign of our success in engaging the right people at the right level that, further to sessions on metal theft and vulnerable customers, our stakeholders have asked us to organise even more specialised events for selected groups of experts – to discuss issues such as target hardening and legislation.

Feedback forms left on the day indicate that stakeholders have emerged from the session better informed and having greater confidence in the direction of our business. Many said the honesty with which we approach the most difficult subjects and areas in gave them confidence that we take engagement seriously and will act on our promises.

We have examined some key challenges to delivering infrastructure in London

The Business Plan addresses a number of issues that have been identified through our London Electricity Regulation Working Party process. At the commencement of our planning process, a number of stakeholders identified some key infrastructure issues in central London.

Given the importance of central London to the UK economy, we considered it was important to establish this separate Working Party to ensure the business plan for the next eight years reflected the needs of the capital city. As part of this process, we have worked closely with representatives of the planning authorities and economic development bodies in London to align our infrastructure plans with the spatial development plans.

This Working Party also contains organisations which exist to represent business and commercial enterprises in London, and this has added a practical counterpoint to what could have been more aspirational planning-led discussions.

We believe that this has resulted in an investment plan for London which is supportive of the aspirations of London government but also reflects the real-world needs of the business community in particular. UK Power Networks will continue to meet with the Electricity Regulation Working Group to obtain valuable feedback from stakeholders.

London Electricity Regulation Working Party Attendees	
City of London	City of Westminster
City Property Associates	Westminster Property Association
Greater London Authority	Westminster Council
London First	UK Power Networks

2.1.1 We have used a number of engagement techniques to capture feedback

Not all our stakeholders have the availability or time to attend specific events; therefore, it has been important to capture feedback using a range of techniques.

- Our online consultation process has been an important element in providing these additional channels of engagement
- All of our presentations for stakeholder events and subsequent feedback reports have been published on the UK Power Networks website. We have encouraged the delegates to write to us with feedback, which a number of them have done
- We also promoted awareness of our Business Plan through industry events, at some of which we presented and distributed our business plan

2.1.2 Low carbon initiatives are a crucial component of RIIO-ED1

The facilitation of the low carbon economy has been an important component in the development of the Business Plan and our engagement activities have reflected this.

Our initial engagement workshops were focussed on the creation and evaluation of appropriate planning scenarios for the take-up of low carbon technologies. This theme flowed through into our consultations around Outputs and appropriate measures. Latterly, low-carbon issues have been high on the agenda of our Critical Friends panels and debate has ranged from how best to accommodate small-scale distributed generation, such as PV, within our network to the potential for companies such as ours to become Distribution System Operators.

Equally we have been addressing this issue on a very practical level through the establishment of a DG Forum. The intention is that this group of stakeholders will, over time, help us to transform the way we work with the DG sector, whether they are installers of small-scale household technology or large renewable generators.

2.2 Willingness to pay forms the basis of our outputs engagement

Early in the development of our plan, we recognised that there would be a need to test what our customers most value, and to identify specifically which, if any, initiatives or service improvements were valued sufficiently that they would be prepared to fund them. Customers were also given the opportunity to identify where a reduction in service could be tolerated in exchange for a lower cost to them.

The project was run for each licence area independently and within each considered domestic consumers and business consumers separately.

The research was in two phases:

1. (Scoping) Qualitative – to explore all aspects of the service provided by the DNO, and to consider potential initiatives in order to establish customer priorities.
2. Quantitative – a statistical research exercise to quantify the value that customers attribute to different services in a form which can be readily converted into a financial value.

The table below summarises the forecast additional charges that customers have indicated they would be willing to pay in return for the items they value. Note: this is a theoretical maximum as some items may, for example, be mutually exclusive.

	EPN (£m)	LPN (£m)	SPN (£m)	Total (£m)
Domestic	254.8	123.9	234.1	612.8
Business	113.2	82.0	104.9	300.1
Total	368.0	205.9	339.0	912.9

Note: these figures are cumulative over the eight years of the RIIO-ED1 period

The table below summarises the Top 8 initiatives, ordered by the total forecast charges that domestic and business customers would pay over the RIIO-ED1 period.

Proposition	WTP Value (£m)
Investment in infrastructure required to enable UK Power Networks to detect loss of supply from individual or small groups of premises	120.0
Investment in network technologies to allow cheaper and quicker connection of new low carbon generators of electricity	115.4
Investment to enable uptake of micro-generation e.g. solar panels etc.	85.6

Proposition	WTP Value (£m)
Investment in infrastructure required to support take up of low carbon electric heating technologies	73.2
Timing of any new connections work: Work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	56.1
Time to complete simple, low voltage new connections work: 75 days quicker than now, i.e. within 15 days	53.2
Timescale for provision of quotations for simple, low voltage new connections work: By date agreed with customer	51.3
Rural customers: For power cuts longer than 3 minutes, time to restore 80% of affected customers within 60minutes	45.7

We also commissioned a complementary study which undertook a Willingness to Pay exercise amongst both small and large businesses based in the key business districts (CBD) of London, i.e. City of London, West End, Docklands. The purpose of this was to identify if there was any difference in the priorities and value for these customers, as compared to the wider population of LPN.

This study showed that businesses in the CBD would be willing to pay an additional £31.7m over the RIIO-ED1 period, in respect of those service improvements they valued. As above, the table below summarises the Top 8 initiatives.

Proposition	WTP Value (£m)
Urban customers: for power cuts longer than 3 minutes, time to restore 80% of affected customers: within 5 minutes	5.6
Investment in infrastructure required to enable UK Power Networks to detect loss of supply from individual or small groups of premises	4.5
Timescale for provision of quotations for high voltage new connections work: by date agreed with customer	3.4
Urban customers: for power cuts longer than 3 minutes, time to restore 80% of affected customers: within 10 minutes	3.1
Frequency of power cuts over 3 mins - average number: 1 every 48 months	2.5
Timescale for provision of quotations for high voltage new connections work: within 20 working days	2.5
Contingency services: provision of back-up services to customers e.g. regular testing of customer-owned generators and systems	2.4
Timing of any new connections work: work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	2.0

This study is insightful in showing a subtly different set of priorities for business customers in the CBD, with a greater bias towards network reliability and Connections than the wider London population.

The results of both these research studies are described in more detail at chapter 4 Consultation on planning scenarios.

2.3 Whole of business engagement

Our stakeholder engagement team is based in the UK Power Networks Customer Services Directorate, and coordinates activities across each area of the business.

From the very start of the planning process, UK Power Networks has sought to extend involvement in the price control as widely as possible, and draw upon the expertise throughout our business. There has been a clear objective to ensure that this should be a ‘whole business’ plan, rather than simply something devised by a central business planning function. This involvement has extended well beyond teams developing content for the business plan related to their area of responsibility, and has included active business participation in the Ofgem RIIO-ED1 working groups or in the broader programme of stakeholder engagement.

Over and above this direct involvement in the development of the Business Plan, there has been a broader effort to educate and inform the business in the changing priorities which will characterise the RIIO-ED1 period. This manifests itself in many forms, for example:

- The creation of a business plan engagement team to facilitate the wider business in developing its contacts with stakeholders and introducing best practice processes and techniques into their initiatives
- Regular briefings to our Trade Union representative bodies
- An education campaign about the RIIO framework so that managers understand the principles through which our company is regulated and how this might impact their day-to-day operations
- Tailored content for our leadership development courses on the requirements for running a cost-efficient, output-driven regulated business

2.4 Stakeholder engagement is an on-going process

This document demonstrates our Business Plan has been tested with various stakeholders through multiple channels over an eight -month period.

We are yet to hold the following stakeholder events:

- Customer Focus Groups
- Solar Panels and Distributed Generation
- Fifth Critical Friends Panel sessions – Business Transformation

The Critical Friends Panel sessions will continue to be held in each of the three DNO areas, becoming an enduring process with a recognised panel and independent chair

The Business Plan is due to be submitted to Ofgem on 1 July. Needless to say, our stakeholder events will continue uninterrupted and we have already developed a calendar of events that we intend to hold until the end of 2013.

UKPN has also made the commitments in its RIIO-ED1 outputs to:

- continue with three critical friends panels per DNO per annum;
- review whether it is possible for an independent chairperson to the critical friends panels be appointed;
- publish and review our annual planning assumptions through the critical friend panels;
- publish an annual report on the progress against the RIIO-ED1 business plan; and
- discuss the annual report annually at the RIIO-ED1 critical friend panels

2.5 What's Changed

2.5.1 UK Power Networks' approach to the resubmission

- The UK Power Networks' July 2013 business plan was developed following extensive stakeholder engagement. Following the submission of the Business Plan to Ofgem, stakeholder engagement at UK Power Networks continued as business-as-usual, with sessions held on a variety of subjects proposed by a wide cross-section of stakeholders and the independently elected chairmen of the panels.
- Additional engagement, specifically on the resubmission, was conducted following Ofgem's decision not to fast-track UK Power Networks' Business Plan. That engagement included three Critical Friends' panels (one per DNO area) in February, in which UK Power Networks:
    - briefed stakeholders on Ofgem's business plan assessment criteria;
    - presented a high-level comparison between UK Power Networks' business plan and those of other DNOs in key areas;
    - updated stakeholders on Ofgem's feedback and methodology, notably with regard to cost assessment, and the challenge that UK Power Networks faced from Ofgem to cut cost and volume of work on the network in RIIO-ED1;
    - discussed how UK Power Networks proposed to address the challenge without altering the 77 output commitments that it made as a result of extensive stakeholder engagement; and
    - provided an opportunity for stakeholders to raise questions and seek clarifications.

A cross-section of stakeholders were present, including from Consumer Futures, the British Red Cross, local authorities, including district and parish councils, emergency planning teams and regional charities as well as a number of developers and banks, representatives from the. Many of the stakeholders had attended earlier consultations that UK Power Networks held as part of the consultation to put together the original Business Plan. Those who had not previously attended were provided with the slides and transcripts from the earlier sessions as well as an extensive telephone or face-to-face briefing prior to the sessions.

All three sessions on the resubmission of the Business Plan were well received. Transcripts of the meetings can be found online at:

http://www.ukpowernetworks.co.uk/internet/en/have-your-say/events-consultations/reports-presentations/

2.5.2 Ofgem Fast-Track Assessment

Ofgem endorsed UK Power Networks' original business plan as well informed by stakeholders and UK Power Networks continues to believe that this is the case of its revised business plan, although there has been limited time to engage with stakeholders in extensive discussions regarding Ofgem's Fast-track proposals.

2.5.3 UK Power Networks' Business as Usual Stakeholder Engagement

UK Power Networks has continued with its ongoing business-as-usual stakeholder engagement, hosting Critical Friends panels and issue-specific forums on a variety of subjects. UK Power Networks has regularly reported back to stakeholders through the sessions, reports and newsletters as well as face-to-face meetings Activities.

Below is a short synopsis of some of the stakeholder engagement activities that UK Power Networks conducted between July 2013 and March 2014:

- Issue-specific focus groups on Vulnerable Customers and Fuel Poverty, connections and Distributed Generation forums, Highway Services workshops, etc.
- Critical Friends panels examining:
  - UK Power Networks' large-scale Transformation Programme and what improvements it will bring to our customer service
  - Issues of sustainability, environment and corporate social responsibility
  - UK Power Networks' response to the St. Jude storm in October 2013
  - UK Power Networks' response to the December 2013 and February 2014 storms
- Public consultations/drop-in sessions in the communities worst affected by storms, including Yalding, Bramley, New Ash Green and Whitfield
- Presentations at Parish Council meetings
- Young Carers workshops designed to raise awareness among this hard-to-reach stakeholder group on issues such as energy efficiency and how to cope in electrical emergencies.

The above is by no means an exhaustive list of all stakeholder activities undertaken since July 2013 and is in addition to UK Power Networks' sessions on the re-submission of the Business Plan.

UK Power Networks held bi-lateral meetings with key city stakeholders such as the Corporation of London, the GLA and London First. We have also met with the HSE regarding ESQCR cable pit risk mitigation.

3 Consultation on output measures

As part of the strategy, planning and development phase of the stakeholder engagement activities, UK Power Networks commenced engagement on our key output measures. An output is the delivery of a product or level of service. In response to the discussions with stakeholders and Ofgem, UK Power Networks will make commitments to the delivery of a set of outputs as part of the business plan.

This report provides details of the findings of four separate strands of engagement: a workshop, online consultation, domestic focus groups and interviews. It also includes three further responses that have been received but did not fit the engagement structure.

The aim of all three strands has been to give stakeholders the opportunity to discuss the outputs in each of the six categories defined by Ofgem.

Ofgem defines the following six output categories:

- Safety
- Conditions for connections
- Customer service
- Environmental performance
- Network reliability and availability
- Social obligations

UK Power Networks was also seeking to understand how to measure performance in a way that is meaningful to stakeholders and to use this feedback to further develop outputs. The findings from this process helped UK Power Networks form specific commitments for the delivery of the outputs.

3.1 How did we engage and with whom?

The invitation list for the workshop was based on stakeholder analysis of targeted organisations and individuals with an interest in UK Power Networks. The meeting was well attended, with 62 stakeholders from across all three of the networks that UK Power Networks covers attending the event. It was held in central London with the purpose of helping participants understand the context of outputs and give stakeholders the opportunity to discuss the outputs in each of the six categories as well as the chance to review and suggest alternative measures.

A further 21 stakeholders took the opportunity to respond online to the consultation. They were asked to provide their opinions on existing outputs and possible new outputs proposed by UK Power Networks, as well as propose any of their own suggestions, for the eight output categories.

The final part of the engagement occurred through ten interviews that were held with stakeholders who were unable to attend the workshop. Stakeholders across a range of sectors were contacted by phone and invited to take part with the aim to discuss one or two categories of output of the interviewee's choice in depth. The aim of the interview was to focus on one or two output categories; however the interviewer endeavoured to capture all that the interviewee was willing to discuss.

3.2 What were the outcomes?

Stakeholders supported the output categories and made a number of specific comments.

Safety	• The safety output measures were generally supported by stakeholders
	• Some new measures were suggested such as near miss incidents
	• Education was rated highly as was engagement of the public and training of employees • Other suggested measure included measuring incidents during street works and the number of traffic incidents
Customer Satisfaction	• Feedback on this output measure was consistent across all stakeholder groups
	• Phasing out of telephone survey to be replaced by online surveys was supported
	• Improved communication during streetworks was suggested
	• Better response to customers with unusual connections requirements
	• Focus on measuring quality of service rather than new service or service levels
Conditions for Connections	• Improved transparency of costs and better communication
	• Customers were prepared to pay more for better service and more accurate estimate of costs
	• Enhanced competition among providers and a new measurement for market share
	• Timelines and quality of work were regarded equally with value for money
Environmental Performance – The impact of our operations	• The measurement of infrastructure removed from areas of outstanding natural beauty was rated highly
	• Undergrounding infrastructure was mixed between those want to preserve beauty and protection of flora, fauna and archaeology
	• Need to target a wider range of causes of greenhouse gas emissions
Environmental Performance – Facilitation of low carbon economy	• Continue to measure impact on CO_2 reduction from investment choices
	• General support leading role in electric vehicle charging
	• Some questioned whether EVs would ever be viable and therefore infrastructure would be wasted
Network Availability and Reliability	• General support for investment ahead of need. Views that beneficiaries of investment should pay/pay more
	• Social and business impact of interruptions was rated more highly than length of duration
	• Current interruption measure of 18 hours was too long. Better communication was required during interruptions
	• Support for measures of interruptions based on the number of customers affected and greater investment to prevent high impact, low probability events, especially in relation to central London
	• Main fuse failures, restorations impacted by severe weather and the 18 hour restoration output were highlighted as particularly important to emergency planning
Network Availability and Low	• There was support for investment to encourage localised generation and CHP

Carbon Economy	• Support for improved demand side management services
Social Impact	• There was a suggestion that reinforcing infrastructure in remote areas could be considered a "support service" for those who are only served by electricity
	• There was support for minimising the impact of street works through working with others, including other utilities, local authorities and closer working relationships with developers

3.2.1 Outcome

This consultation process resulted in a range of views being captured. This included:

- Comments on the suitability or effectiveness of existing Output measures
- Comments on the relative merits of existing and/or alternative Output measures
- Proposals for alternative outputs that would either have some meaning or value to stakeholders
- Opportunities for improvement highlighted as part of the discussion of the Outputs

These outcomes have informed both our internal planning processes and the contributions that we have made to the development of the price control framework through the working groups and responses to Ofgem consultations. For example, stakeholders expressed concerns about the 'narrow' nature of the Broad Measure of Customer Satisfaction, suggesting that it should attempt to capture the views of a more diverse range of customers and a range of channels. UK Power Networks has incorporated some of that thinking into its positions within the discussion in Customer Service ED1 working group.

Beyond this, this consultation has provided a significant influence in informing our position on the appropriate Outputs we should include in our business plan. It is worth observing that the Directors who have signed off on these Outputs and who have executive responsibility for their delivery were in fact the facilitators of those stakeholder discussions and have participated in the process from beginning to end.

4 Consultation on planning scenarios

Consultations on planning scenarios were a critical early phase of our business planning cycle, and provided a number of key stakeholders across our three DNO areas the opportunity to review the scenario work. The feedback we collected helped us refine our future energy scenarios. This work then fed into the draft Business plan, which was published in November 2012.

4.1 How did we engage and with whom?

We held three workshops, one for each DNO licence area, where the business planning process was explained, the scenarios that had been developed presented, and attendees were given the opportunity to review, discuss and challenge the scenarios.

In addition, UK Power Networks provided information on the scenarios on the engagement website http://yourviews.ukpowernetworks.co.uk/ , along with an online form allowing people to provide feedback on the planning scenarios.

The scenarios developed and a brief description of each is detailed below:

Business As Usual	The British economy gradually returns to low growth
	South East England remains strongest region in the nation.
	Climate change remains an issue and Government wants to achieve its targets
	The uptake of smart grid technology remains slow
Economic Concern	The Economy remains at zero growth, the economy is decreasing relative to our major trading partners.
	Incentives for nuclear operators to get their plants built and private investment in generation has tended to focus on smaller scale onshore renewables
	Large-scale offshore installations have been slow to develop. Electric vehicle have not grown
	Demand side management has grown as a method of reducing costs
Engaged Green	British economy returns to strong growth with London and the South East leading the way
	Disposable incomes and tax revenues rise, additional subsidies for low carbon technologies.
	Microgeneration grows, solar panels, wind turbines and heat pumps. EVs become more common.
Green Stimulus	Economy remains subdued and Government uses green stimulus to encourage growth.

	Targeted incentives for people to adopt energy efficiency measures and sources of renewable generation
	Small entrepreneurial companies entering the Energy market. A range of new green technologies is accessible to all, and the traditional 1:1 relationship between the customer and energy supplier has been broken, with Energy Services Companies
	Onshore and offshore wind, together with other renewable generation such as CHP schemes, have become a regular feature of the landscape
Green Technology Revolution	Economic growth has been driven by private and public investment in new low carbon industries.
	Adopting energy efficiency measures such as improved insulation or installing renewable generation such as heat pumps has become a popular measure
	Government incentives such as the Feed in Tariff have proved effective in encouraging the spread of renewables. Subsidies provided to electric vehicles, and the expanding networks of charging points, have made them a commonplace sight
	Nuclear and CCS remain undeveloped

Discussion of scenarios

In the workshops and in the online feedback forms submitted, a number of issues were raised generally about the scenarios or came up repeatedly when discussing specific scenarios. A frequently expressed view was that business and domestic users might respond differently within each scenario, and that there would be some value in exploring likely experiences for the two sectors within each scenario.

A number of consistent issues were raised about various low carbon technologies: Wind power, both offshore and onshore, were frequently questioned in the scenarios where significant increases in this technology were suggested – the general view being that the public oppose many (onshore) wind developments and this is likely to continue. It was also felt that other technologies that may well have a significant impact in the future did not receive sufficient attention in the scenarios, including Combined Heat and Power (CHP) and energy from waste.

The following section takes each scenario in turn and provides a summary of views expressed on their viability.

Scenario 1 – Business As Usual

The Business As Usual scenario was presented simply as a reference point against which the other scenarios could be compared meaning that stakeholders were not asked to comment on or critique this scenario.

Scenario 2 – Economic Concern

This scenario is regarded by many as viable – indeed some comments suggested that it was more the current state than a scenario. However, others regarded the scenario as overly pessimistic, stating that they feel that the UK was well positioned to come out of the economic slump in the short to medium term. The UK Power Networks region is felt to be better equipped to emerge strongly from recession than many others.

The viability of this scenario was challenged for several reasons, including:

- It was not viable in London, where measures would be put into place to protect the financial sector and this is turn will keep the economy buoyant
- Wind power will continue to have low uptake due to public opposition
- Increases in fuel prices will drive efficiencies, and demand side management will have higher uptake than is anticipated by this scenario

Scenario 3 – Engaged Green

While some saw this scenario as viable in the longer term, the phrase most readily used for it was ‘overly optimistic’.

Stakeholders challenged the likely rates of economic recovery that would be required for this scenario to occur/be delivered - as well as the likely speed of uptake of new green technologies. It was commented that it seemed unlikely we would see a scenario that would see both strong economic growth and a transition to a low carbon economy. Some went so far as to suggest that the move towards a low carbon economy may need to be put on hold in order to retain UK economic competitiveness. There were quite a number of challenges to this scenario, including a sense that many of the expectations are too ambitious to be realised. These included the uptake of electric vehicles and the shift that would be needed towards public acceptance of wind power.

There were other challenges to this scenario, including:

- The Renewable Heat Incentive being far more short term in impact than is suggested
- That the market may be more influential than is suggested, with technology such as smart metering influencing this
- Questioning why carbon capture and storage is not regarded as having a significant impact

There was a strong sense that for this scenario, incentives for take-up would need to be highly significant –i.e. people would be motivated by cost savings only when they were really noticeable in relation to household income

Scenario 4 – Green Stimulus

Across all the workshops and the online feedback this scenario was regarded as viable, highly likely and realistic, although a few voices suggest that it is overly pessimistic. People comment that its viability is in part because it is very close to the current situation. There is a sense that in some ways this scenario is a stop-gap that could flip to something akin to the Economic Concern scenario or the Engaged Green scenario.

Even though this scenario was considered highly viable, a number of challenges were made including a sense that:

- It is a lot to expect consumers to spend on new technologies with an eye on making savings in the future when cash is limited
- Feed-in tariffs may well change, with incentives lowered

As with the other scenarios, some things were felt to be missing that could have a significant impact. These include likely increases in embedded generation; the potential role of CHP, micro-hydro; other vehicle technologies such as hydrogen; and the role of energy storage

Scenario 5 – Green Technology Revolution

Views were split on this scenario, with some seeing it as not at all likely or viable, while others regarded this as the most likely scenario. A number of people felt its viability was hampered because the likelihood of the economic growth to achieve it would not materialise, while others felt that it was economically viable but that the challenge in achieving behaviour change as well as technology uptake was not likely to be met.

One person suggested that early technology adopters would not see any benefits without behaviour change, and thus this scenario would be unlikely to be achieved.

A number of people recognised that this scenario would require a large amount of new infrastructure which may be difficult to achieve; and in common with other scenarios, people questioned the likely acceptability of more wind power generation as well as the uptake of electric vehicles.

4.2 How did we use the information?

The consultation exercise focused on two main elements which we believe will influence the requirement for future network capacity, namely economic growth and the take up of green behaviours and technologies. Through discussion of each of the scenarios in turn, we gathered a range of stakeholders' views on the different assumptions that made up each scenario, and the likelihood of those assumptions being realised.

In considering this feedback, it was immediately evident that no one scenario fully reflected the views of stakeholders. As a result, we considered each assumption in turn and used that to develop a new scenario which, in our opinion, best reflected the outcomes of the workshops. The rationale to support the choice of driver is discussed below.

The overwhelming view from our stakeholders was that the current poor economic conditions were exceptional and that economic growth would return in time. However, there was little consensus on when this would occur.

In addition, there was a general expectation from our London stakeholders that London had been relatively insulated from the worst effects of the recession and that, ultimately, growth in London would return to its previous high levels. Thus, we assumed that the rate of regional GVA growth would be best represented by the long-term (14 year) average.

Over and above this, we reflected the resilience of the economy in London, by refining the analysis to improve its regional granularity. This had the effect of raising the long run average for London.

There was significant discussion amongst our stakeholders on the achievability of the Government's targets for house building. On a number of occasions it was pointed out that, without a change to the planning regimes, these targets were unlikely to be achieved. It was also pointed out that in the short term the lack of both capacity in the construction industry and availability of mortgage credit would affect growth.

Our own analysis of historic levels of household formation indicated that the forecast levels have rarely been achieved in the past. On this basis we assumed that from the start of RIIO-ED1 (2015) household growth is unlikely to deviate from the long-term average level of formation.

Furthermore, in line with stakeholders' feedback regarding the unusual economic conditions in recent years, we have decided that this long-term average should be measured over a period sufficient to cover multiple economic cycles. As such we extended the time period to 17 years.

4.2.1 Energy efficiency assumptions

The area of energy efficiency was a topic of considerable debate.

The majority of stakeholders agreed that there was significant scope for improvements in energy efficiency. However there was also considerable doubt, given the lack of historical take up, and whether this potential would be achieved. Key barriers cited were customer inertia and the long-term affordability of financial incentives to support its implementation.

Therefore, we decided to adopt the DEFRA Reference Scenario as the base for the energy efficiency assumptions underpinning the plan.

4.2.2 Technology deployment assumptions

There was a widely held view that projections of the levels of penetration of the Government's favoured low carbon technologies, such as heat pumps, electric vehicles, and small scale renewable generation, were highly optimistic. The rationale for this was that significant on-going levels of financial support, from either Government or from customers, would be required to deliver the high levels of take up suggested.

Therefore, we set the penetration levels of these technologies in line with the current incentive package for each technology. Implicit in our assumption is that these incentives are maintained for a sufficient period of time for the technology to become commonplace.

A significant area of debate concerned the likely penetration of onshore wind within our East of England and South East network areas. A number of local authority stakeholders emphasised the strength of local opposition to its deployment that is encountered routinely. However, it was also recognised that this technology could play a significant part in meeting the UK Climate Change objectives and would attract strong Government backing. Additionally, there is a growing opinion that it may prove to be more cost effective than offshore wind.

On this basis we have opted for our medium case assumption for onshore wind generation.

With respect to offshore wind we have assumed that this will generally connect to either the National Grid or an offshore transmission network post 2015.

4.2.3 Market mechanisms

There was considerable debate about whether individual households and companies were likely to be receptive to price signals, such as time-of-use tariffs. There was great scepticism that people would modify their behaviour by, for example, charging their electric vehicles or operating certain appliances at specific times of the day or night. The conclusion was that significant incentives would be required to drive such changes and that there is little evidence that these are likely to be available.

On this basis and in the absence of any information as to possible incentive arrangements, we assumed that few customers will modify their usage and hence market mechanisms are likely to have a minimal impact on demand. This assumption could be reviewed subject to any future announcements.

4.2.4 Other comments

One of the challenges presented to stakeholders concerned the completeness of the scenarios.

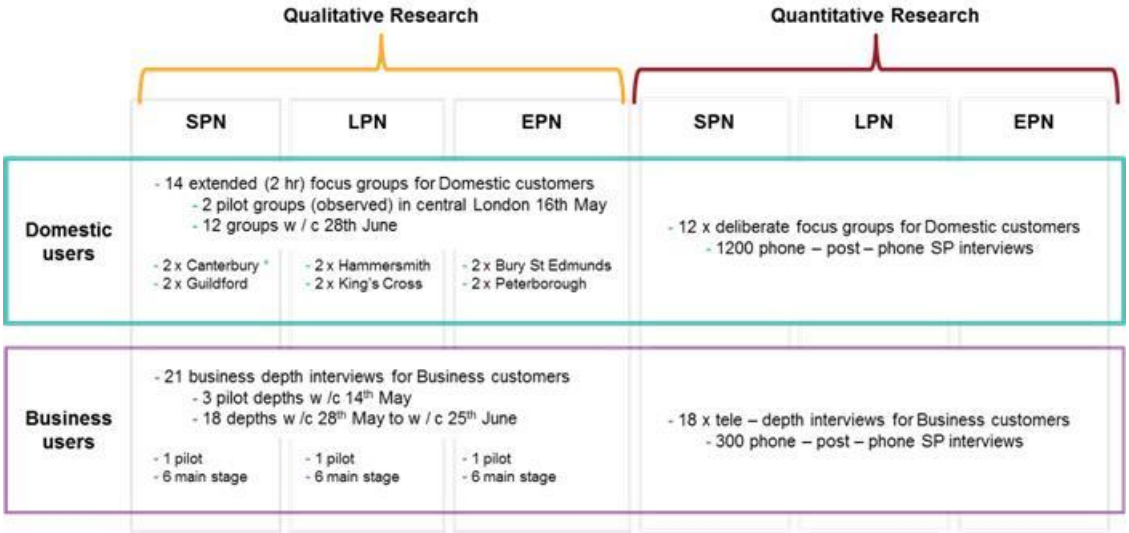
There was some debate about the different green technologies that might be deployed. As indicated previously, the scenarios focus on those that have been identified by Government in their forecasts. A number of stakeholders, particularly local authority respondents, proposed the inclusion of district level combined heat and power schemes. There were also a number of mentions of household, mini-CHP installations.

After some consideration, we decided not to include these technologies in our planning assumptions. This was driven by a lack of robust data sources which we could draw upon to inform our modelling. However we intend to keep this under review and can anticipate incorporating these technologies into our models as and when there is greater clarity over the likely levels of penetration and the funding/incentive mechanisms that might support them.

5 Willingness to pay

In conjunction with our consultation on outputs and planning scenarios, UK Power Networks has undertaken research to ensure that its business plan takes into account customer priorities and in particular, the trade-off between additional investment and prices.

This comprised of a series of sessions specifically focused on willingness of customers to pay – both qualitative and quantitative in nature. Our engagement approach was designed this way as we wanted to create a two way dialogue with our customers and encourage their input into our business plan and potential future direction, rather than simply offer them predefined selection choices for approval or rejection.



5.1 Qualitative research

The qualitative research was conducted in order to inform design of the quantitative and stated preference research elements. It focused on customer feedback and insights.

5.1.1 Perception of performance

Overall, there is an assumption that, given a low awareness of our company and the infrequency of power cuts, UK Power Networks must be doing a good job. There is an understanding that power cuts may be caused by other utilities, extreme weather conditions etc. In general, there was no great interest in a marketing campaign to raise awareness of the company as this was considered to be a waste of money.

5.1.2 Key themes

It is important to note that customers demonstrated a willingness to pay for the provision of certain services. The highest priority topic that we have observed from these engagement sessions has been reliability of supply. Domestic users are also concerned with efficiency and a view to the future i.e. they place importance on environmental considerations. Business users also that the future view is important as well, but place higher value on developing new technologies and greater efficiencies and are more interested in greener alternatives.

Although customers have little experience in new connections, and consequently a limited understanding of process, they disliked the idea of two-tier offering i.e. a potential premium service to include accelerated time scales for work. Another key outcome was that safety should be an expected function of a DNO but education was a very low priority (and seen as not UK Power Networks' responsibility to fulfil). Social impacts such as highways were seen as a problem to be funded by all utilities whereas for discretionary services the feeling was that the user should cover the cost.

- **Domestic.** We found some general willingness to pay amongst domestic users but little or none in Canterbury, Peterborough and London. The strongest willingness to pay was for environmental issues, for example leaking pipes/switchgear and low carbon technologies. The price range included between £2, £6, £10, £12, £20 (pa).
- **Business.** Among Business users there was very little willingness to pay among public sector and smaller companies although there was some for continuity of supply and for improvements to the current service.

5.2 Quantitative research

The quantitative research posed more specific questions and asked participants to assign a value to the priority they placed on topics the qualitative research suggested could benefit from further customer insight.

Domestic: The research identified willingness to pay for the majority of improvements; there was also some readiness to accept deterioration in service levels.

Willingness to pay ranged from a 0.58% increase in customer's distribution bill by 2023 for the lowest valued service level to a 2.90% increase for the service level valued most highly.

Overall, the willingness to pay by 2023, as a proportion of the average distribution bill, was:

- LPN: 16.7%
- EPN: 20.3%
- SPN: 20.4%

The priorities of domestic customers were focused on:

- Investment in technologies to allow cheaper and quicker connection of low carbon generators of electricity (this was the highest priority for LPN and SPN customers)
- Investment in infrastructure to detect loss of supply from individual / small premises (the highest priority for EPN customers)
- Investment to enable uptake of micro-generation;
- Investment in infrastructure to support low carbon electric heating technologies
- New connections work to be undertaken in normal business hours, evenings and weekends

Business: The research identified willingness to pay amongst businesses for the majority of improvements and, again, there was also some willingness to accept deterioration in service levels**.**

Willingness to pay ranged from a 0.65% increase in their distribution bill by 2023 for the lowest valued service level to a 3.01% increase for the service level valued most highly.

Overall willingness to pay by 2023, as a proportion of the average distribution bill, was:

- LPN: 18.0%
- EPN: 21.8%
- SPN: 21.0%

Business customers described their priorities as:

- Investment in technologies to allow cheaper and quicker connection of low carbon generators of electricity
- Investment in infrastructure to detect loss of supply from individual/small premises
- Investment to enable uptake of micro-generation
- Provision of quotations for simple, low voltage new connections work: timescale/date agreed with customer
- New connections work to be undertaken in normal business hours, evenings and weekends

Implications for business plan revision and further action

As was described previously, the qualitative (scoping) phase of the project was undertaken to ensure that customers influenced the choice of areas where we would then go on to test Willingness to Pay.

The primary areas of interest to consumers that emerged from the scoping phase of the study map neatly on to four of the Output Categories, as follows:

- Network reliability
- Connections
- Customer Service
- Environment (low carbon economy)

The outcomes of the Willingness to Pay research in each of these areas are described below, together with details of how UK Power Networks intends to respond.

5.2.1 Network Reliability

Issues of network reliability and specifically the frequency and duration of power outages were a significant topic in the scoping study, perhaps because it is the one service that people instinctively find easy to relate to.

There was the widely held feeling that this was an area where performance had noticeably improved over the last 2 or 3 decades, to the point where most consumers and businesses has a high level of satisfaction with UK Power Networks performance. There was certainly no appetite for major investments to make a step-change in performance.

There were only two examples of difference on this: firstly, amongst one rural group who had suffered persistent problems on their local network and amongst central London businesses, for which the prospect of any power outages was a concern.

The outcomes from the quantitative study which generated a positive willingness to pay were as follows:

Note: all figures quoted are cumulative over the RIIO-ED1 period.

Domestic consumers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Rural customers: For power cuts longer than 3 minutes, time to restore 80% of affected customers within 60minutes	N/A	12.6	21.3	33.9
Frequency of power cuts over 3 mins - average number: 1 every 24 months	7.0	7.3	14.4	21.7

Business customers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Rural customers: For power cuts longer than 3 minutes, time to restore 80% of affected customers within 60minutes	N/A	5.4	6.3	11.7
Frequency of power cuts over 3 mins - average number: 1 every 24 months	-	5.1	5.3	10.4
Frequency of power cuts over 3 mins - average number: 1 every 48 months	5.7	-	-	5.7

Business customers in London CBD

Proposition	SMEs (£m)	Large businesses (£m)	Total (£m)
Urban customers: for power cuts longer than 3 minutes, time to restore 80% of affected customers: within 5 minutes	0.1	5.5	5.6

Proposition	SMEs (£m)	Large businesses (£m)	Total (£m)
Urban customers: for power cuts longer than 3 minutes, time to restore 80% of affected customers: within 10 minutes	0.1	3.0	3.1
Frequency of power cuts over 3 mins - average number: 1 every 48 months	0.1	-	2.4

In summary, there is a slight bias towards shortening of restoration times, rather than reducing the frequency of power outages, although there is clearly willingness to pay for both.

UK Power Networks response

In developing our business plan, we have noted customer opinions on both the frequency and length of power outages, and the fact that many express the view that fault management and restoration should be the primary objective of the DNO.

In light of this, we have decided to include £27.3m of investment to support targeted Quality of Supply improvements.

This investment figure is split over the 3 networks as follows:

- LPN: £3.2m
- EPN: £17.4m
- SPN: £6.7m

5.2.2 Connections

The provision of new Connections was an area that was of particular interest to business customers, but also one where strong opinions exist amongst those domestic consumers who have experienced obtaining a new Connection.

However, even for those customers with no exposure to the Connections process, there was a general expectation over the quality of service that should be anticipated, and this was clearly influenced by their experience of dealing with other service providers, e.g. telecoms companies, cable/satellite etc.

It was also notable that consumers made a subtle distinction between generic customer service activities and provision of a service such as a new connection. For example, they did recognise that offering Connections services at the weekend would bring additional cost to the organisation in salary costs etc. As such, they were more tolerant of the idea that they might have to pay more for an extension in service of this sort.

The outcomes of the quantitative study are provided below: (Note: all figures quoted are cumulative over the RIIO-ED1 period).

Domestic consumers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Timing of any new connections work: Work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	N/A	12.6	21.3	33.9
Timescale for provision of quotations for simple, low voltage new connections work: By date agreed with customer	7.0	7.3	14.4	21.7
Time to complete simple, low voltage new connections work: 75 days quicker than now, i.e. within 15 days				
Timing of any new connections work: Work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	10.0	11.9	18.7	40.6
Timescale for provision of quotations for simple, low voltage new connections work: By date agreed with customer	5.0	13.1	17.9	36.0

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Time to complete simple, low voltage new connections work: 75 days quicker than now, i.e. within 15 days	6.3	14.0	14.7	35.0
Timing of any new connections work: Work undertaken in normal business hours (08.00-17.00), in the evenings and at weekends	6.9	-	22.3	29.2
Type of new connections service offered: All elements of the work completed by UK Power Networks	5.6	5.8	14.6	26.0
Time to complete simple, low voltage new connections work:30 days quicker than now, i.e. within 60 days	-	11.0	-	11.0
Timescale for provision of quotations for simple, low voltage new connections work: Within 7 working days	-	8.6	-	8.6

Business customers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Time to complete simple, low voltage new connections work: 75 days quicker than now, i.e. within 15 days	6.1	5.7	6.4	18.2
Timing of any new connections work: Work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	6.2	3.0	6.2	15.4
Timescale for provision of quotations for simple, low voltage new connections work: By date agreed with customer	8.2	3.4	3.7	15.3
Timescale for provision of quotations for simple, low voltage new connections work: Within 7 working days	7.9	5.3	-	13.2
Timing of any new connections work: Work undertaken in normal business hours (08.00-17.00), in the evenings and at weekends	-	9.2	-	9.2
Type of new connections service offered: All elements of the work completed by UK Power Networks		3.6	5.3	8.9
Contact for any new connection work: Phone or email contact via a named co-ordinator	-	7.6	-	7.6

Business customers in London CBD

Proposition	SMEs (£m)	Large businesses (£m)	Total (£m)
Timescale for provision of quotations for high voltage new connections work: by date agreed with customer	0.1	3.3	3.4
Timescale for provision of quotations for high voltage new connections work: within 20 working days	0.1	2.4	2.5
Timing of any new connections work: work is undertaken within a banded time i.e. morning, afternoon or evening in normal business hours, evenings or at weekends	0.1	1.9	2.0
Type of new connections service offered: all elements of the work completed by UK Power Networks	-	1.6	1.6
Timescale for provision of quotations for high voltage new connections work: within 25 working days	-	1.4	1.4

In summary, there is a general desire to see the process of both quotations and delivery speeded up, but also greater flexibility shown to customers in the timing of Connections.

UK Power Networks response

We understand that there is a long-running concern over the quality of service provided to Connections customers, and this applies across the industry. The introduction of competition in Connections also requires the DNOs, the traditional providers of Connections, to up their game.

In light of this, we have included a wide range of improvements to the end-to-end Connections process as part of our transformation programme (Annex 12: Business Transformation). We recognise that there is a desire amongst customers to see that improvement at the earliest opportunity. We will fund this transformation from its own resources (shareholder funded) and will not call upon customers to subsidise this, even though there is strong evidence of Willingness to Pay. This work is already underway and will be delivered prior to the start of the RIIO-ED1 period.

5.2.3 Facilitating the low-carbon economy

One of the primary issues faced by DNOs, and the wider energy industry, is equipping itself for a world where low-carbon technology is much more central to our lives. This has the potential to result in some substantial investment requirements, and hence we believed that it was important to test the willingness of customers to support this transition.

The outcomes from the quantitative study which generated a positive willingness to pay were as follows: (Note: all figures quoted are cumulative over the RIIO-ED1 period.)

Domestic consumers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Investment in network technologies to allow cheaper and quicker connection of new low carbon generators of electricity	17.5	28.1	35.0	80.6
Investment in infrastructure required to enable UK Power Networks to detect loss of supply from individual or small groups of premises	15.6	27.9	35.7	79.2
Investment to enable uptake of micro-generation e.g., solar panels etc.	14.8	19.0	19.0	52.8
Investment in infrastructure required to support take up of low carbon electric heating technologies	13.3	16.6	19.5	49.4
Investment in infrastructure required to support take up of electric vehicles	5.3	15.4	12.2	32.9

Business customers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Investment in infrastructure required to enable UK Power Networks to detect loss of supply from individual or small groups of premises	12.4	12.2	16.2	40.8
Investment in network technologies to allow cheaper and quicker connection of new low carbon generators of electricity	8.5	9.5	16.8	34.8
Investment to enable uptake of micro-generation e.g., solar panels etc.	9.8	7.9	15.1	32.8
Investment in infrastructure required to support take up of low carbon electric heating technologies	6.7	8.7	8.3	23.7
Investment in infrastructure required to support take up of electric vehicles	5.7	3.8	9.8	19.3

Business customers in London CBD:

Proposition	SMEs (£m)	Large businesses (£m)	Total (£m)
Investment in infrastructure required to enable UK Power Networks to detect loss of supply from individual or small groups of premises	0.1	4.3	5.4
Investment in infrastructure to support uptake of distributed/micro-generation technologies	0.1	1.5	1.6
Investment in infrastructure required to support take up of electric vehicles	0.1	1.2	1.3

In difficult economic times, one might have expected 'discretionary' investment such as this to be less favourably viewed. When combined with the general scepticism that exists in certain quarters, the extent of Willingness to Pay for these forms of investment was perhaps the greatest surprise in the whole study.

It was notable that customers were particularly keen on us making use of the potential within smart meters. To most people, it is a surprise when they find out that we do not necessarily know when a power outage occurs, particularly at the lower voltages. Hence, customers overwhelmingly saw the availability of 'last gasp' functionality (a real-time outage notification transmitted by smart meters when they lose supply) as being a significant opportunity for DNOs to improve their response to faults, and something that we should embrace.

Likewise, there was a favourable response to the propositions around investment to support the connection of renewable and distributed generation. Again there appears to be a widely-held belief amongst all types of customers that this will be a major part of the energy mix in the UK and that DNOs should be investing to facilitate this.

There was more scepticism about the take-up of electric vehicles with many customers citing the expense and also the increasing efficiency of hybrid alternatives etc. The willingness to pay whilst not insignificant does reflect this.

UK Power Networks response

We have noted the enthusiasm of customers that we should be taking the maximum advantage of smart metering as a tool to improve our wider service, particularly in respect of faults

In light of this, we have decided to include £114.9 million of investment to support process and system changes in response to the availability of smart meter data.

Our EPN network has seen high levels of distributed generation project connections, in particular in the north of the East, where demand is relatively low. Consequently, we have identified a need to invest to address existing network constraints such as voltage and fault levels and thereby ensure the quality and reliability of supply and network safety standards.

We are therefore proposing to undertake four network reinforcement investments, forecast to cost around £15.4 million, which will increase network capacity by 187MVA. We have robustly tested this investment to ensure that it is prudent and efficient and will deliver outputs and outcomes that are in the long term interests of our customers through:

- WTP studies – There was clear support from customers for network investment to provide additional infrastructure to support the network against LCT growth. Customers indicated that they were willing to pay an additional £116 million across our three networks, and for EPN alone they were prepared to pay an additional £52 million, over the 2015 to 2023 planning period
- Cost-benefit / options analysis – UK Power Networks undertook an internal cost benefit assessment of the 16 different investment options considered. This involved comparing the costs of each project in a single year with the benefits which include amongst other things including a reduction in carbon emissions over a period of 16 to 24 years
- Stakeholder engagement at two UK Power Networks' DG forums
- Technical expert review – this was undertake by SKM and focused on the four proposed projects

This project represent best value for money and would result in a positive return using the DECC non-traded carbon values.

5.2.4 Customer service

Customer service was a significant topic in the discussions we held with our customers.

It was evident that expectations are constantly increasing and that people's experience in dealing with customer service in other sectors, e.g. retail, influence their views as to what is acceptable from companies such as UK Power Networks.

The outcomes from the quantitative study which generated a positive willingness to pay were as follows: (Note: all figures quoted are cumulative over the RIIO-ED1 period.)

Domestic consumers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Information during a power cut: available on contacting call centre plus provision of additional information services such as real-time information on internet, use of social media, customer service staff 'knocking on doors' etc.	4.5	7.0	9.4	20.9
Information during a power cut: Information available on contacting call centre plus provision of automatic update calls to customer from call centre and follow-up call when power cut over	-	10.0	-	10.0
Information during a power cut: Information available on contacting call centre plus provision of automatic text messages to registered customers with details of power cut and updates	-	6.2	-	6.2

Business customers

Proposition	LPN WTP (£m)	SPN WTP (£m)	EPN WTP (£m)	Total (£m)
Information during a power cut: available on contacting call centre plus provision of additional information services such as real-time information on internet, use of social media, customer service staff 'knocking on doors' etc.	-	3.6	5.8	9.4

Business customers in London CBD

There was no significant Willingness to Pay shown by business customers in London CBD

Overall, there is evidence that customers believe that we should be extending our customer service channels to enable two-way communication through whatever medium suits the customer. They are willing to invest in support of that.

UK Power Networks response

As was described for Connections, UK Power Networks recognises that there is significant scope to improve the customer service experienced by our customers. In conducting this Willingness to Pay study, we were also able to gather a lot of qualitative data about customer experiences and expectations.

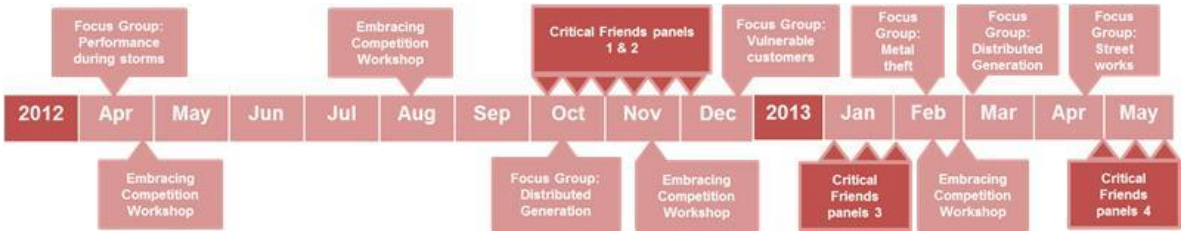
It is clear to us that it would be inappropriate for us to wait until the start of RIIO-ED1 to embark on improving our customer service operations. As such Customer Service will also be prioritised within our Transformation programme, and in reality some of these initiatives are already underway. These improvements will be funded by the company, and UK Power Networks will not be calling on customers to contribute financially to this transformation.

6 Critical friends stakeholder engagement panels

Our approach to the development of output measures, planning scenarios consultation and willingness to pay was all part of the strategy, preparation and planning phase of our stakeholder engagement activities. We have used the outcomes from these engagement processes to inform the next phase of our stakeholder engagement activities, the developing, testing and delivering phase.

A key component of the developing and testing phase of our stakeholder engagement has been testing key outputs and issues for the business plan through our Critical Friends Panels. We have designed our Critical Friends Panels to ensure that stakeholders have an interactive way of expressing their views. Informal discussions in a group of people that got to know each other over the course of several sessions, ample time allocated to Open Forum discussions and networking lunches that followed every session helped us achieve the right balance between us presenting our plans to the audience and our audience asking us questions.

We held four sessions in each of our DNO areas over the course of eight months (October 2012- May 2013). The first 3 panel sessions in each area sought feedback on key initiatives to be considered for the business plan under each initiative. The fourth panel aims to review the progress we have made in implementing stakeholder feedback from the previous panels.

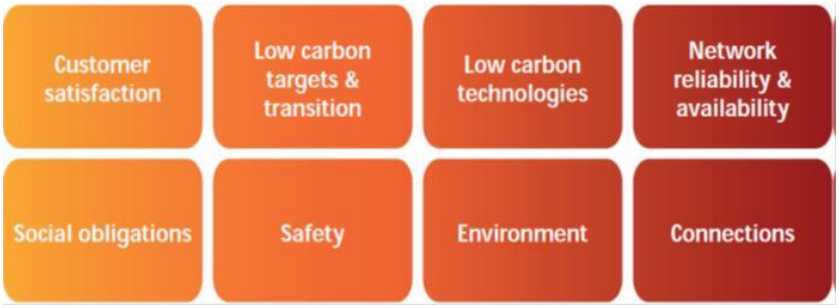


The Panel 4 sessions captured all the feedback from our engagements activities, provided a response to stakeholders on the issues raised and demonstrated how this feedback has been incorporated in the business plan.

The graphic below provides a high-level overview of the purpose and expected outcome from the engagement.

Through previous consultation with stakeholders, we have established the topics that represent the main areas of interest to our stakeholders and reflect the areas within the business where they would welcome the opportunity to provide input. These topics also reflected the output categories that Ofgem created for the next price control period. We also knew that some subjects were of special importance (e.g. smart meters, Distributed Generation, Distributed System Operator) and we made sure our consultation reflected those interests.

UK Power Networks organised the panel sessions into the following categories:



We also scheduled a dedicated session to review our progress on capturing and implementing stakeholder feedback – in a dedicated 'You Said/We Did' interactive session in Panel 4. This allowed us to collect further stakeholder feedback, thus creating the second 'loop' for feedback collection on which we intend to act in the near future.

It is then clear that the important part of this process has been to critique ideas and concepts with stakeholders. One such example is the evolution of UK Power Networks from a DNO to a DSO. Another is creating a customer portal and a 'self-serve' area on our website – ideas that we have tested with stakeholders to understand if they wanted us to embark on such initiatives.

The panels have offered an ideal setting for presenting complex concepts as we have taken attendees on a journey of engagement, introducing our plans for the future against the context of where we are today. In addition, by gathering the same group of people around the table for several consecutive discussions, we have been able to:

- Provide a strategic overview of key concepts
- Explore issues in each primary output category in detail
- Highlight linkages between output areas, demonstrating how improvements in, say, Connections will make a tangible difference to the Broad Measure of Customer Satisfaction

- Build strong relations with individual stakeholders, developing relations beyond the Critical Friends Panel programme

Understandably, not all issues that we have discussed with our stakeholders will be included in our final business plan.

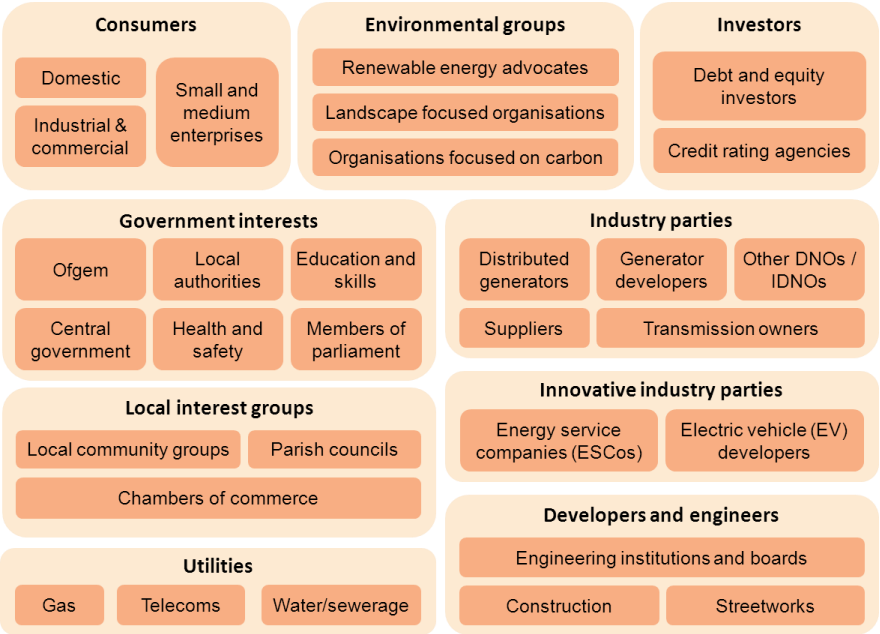
Equally, while specific issues raised by stakeholders would be considered by the business, not all would be practical, feasible or commercially viable for inclusion. Through our comprehensive reporting and feedback process, UK Power Networks provided a rationale back to our stakeholders on why some suggestions were not incorporated in our final business plan.

6.1 Who did we engage?

Throughout the 'Critical Friends' stakeholder engagement panels, we consulted with people from a wide range of organisations and representative bodies, including (but not limited to) major energy users, small business and domestic customers, developers, local authorities and parish councils, charities, environmental groups and organisations which help vulnerable people.

The result of selecting the panel in such a way means we can be confident the output and feedback generated from these sessions will allow us to test our business plan and ensure that it can be considered well-justified.

We have sought to engage our numerous and diverse stakeholder groups that are presented below.



We sought to create a 'core' of panellists who would attend all four panel sessions and would be introduced to and consulted on our initiatives and plans in all output areas.

At the same time, we were aware that some people would have more narrow interests in selected subjects. We were keen to engage with them and invited them to the panel session that covered the subject of their interest or concern and was close to their geographic location.

We used two methods to invite attendees to the panels:

- We consulted our significant database containing information on stakeholders to send invitations to organisations and individuals that we knew would add value to the discussions and allow us to test a number of concepts and ideas across the broad range of topics included in our Business Plan.
- We also engaged managers across UK Power Networks to ensure that we were targeting the right people for each event and that all key contacts had been invited.

Delegates from the following organisations joined us for the panels:

'Critical Friends' Panel Attendees				
Anglian Water	Eastbourne Borough Council	Grosvenor	Mervad Electrical Contractors	RSK Group Ltd
Bernard Matthews	EDF Energy	GTC	More London Estates	SEEC
Birse Civils South Region	Edward Pearce & Partners	Haven Power	Morrison Utility Services	Sir Robert McAlpine
Brentwood Council	Electrical Contractors Association	Horsham District Council	Mott McDonald	Skanska
British Gas	Energy for London	HVMS Ltd	National Energy Action	Sohn Associates
British Red Cross	Energy Networks Association	Ipswich Borough Council	National Federation of Builders	South East Councils
Cambridgeshire County Council	Energy UK	J Murphy & Sons Ltd	New West End	Southdowns Solar
Citizens Advice Bureau	English Heritage	Kent County Council	Norfolk County Council	Southern Water
City of London Corporation	Eon	Land Securities	Norfolk District Council	St Albans District Council
Construction ISG	Essex County Council	London Borough of Havering	Northern Gas Networks	Suffolk County Council
Consumer Focus	Essex Fire & Rescue	London Borough of Redbridge	Norwich Council	London Underground Ltd (LUL)
Davis Langdon	Fairview New Homes	London Sustainability Exchange	Noveus	Transport for London (TFL)
East Cambridge District Council	Forest Heath Council	Major Energy Users Council	Premier Energy	Utility Partnership Limited
East of England Ambulance Services NHS Trust	Fuel Poverty Action Group	Mansell Construction Services Ltd	R E G Energy Services	West Sussex County Council
East of England Co-op	Great Yarmouth District Council	MBC Contracts Ltd	Royal Borough of Kingston	West Sussex NHS Trust
East of England Energy Group				

A number of delegates attended all four of our panels and we had healthy attendance from stakeholders who wanted to know more about a particular subject. As a result, we received two types of feedback:

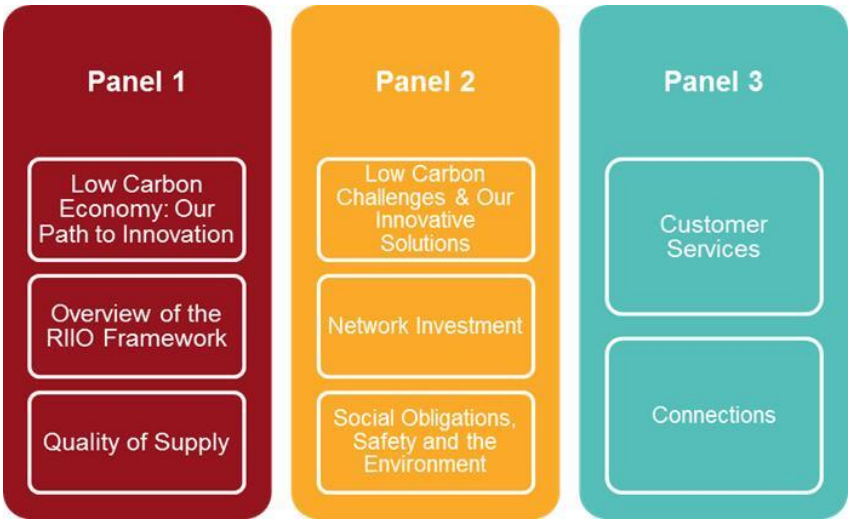
- general suggestions on what would be 'good to have' (e.g., suggestions on how we could improve customer experience in power outages)
- more concrete proposals on stakeholders' thoughts of what could or even must be done to give them the level of service they expect in the RIIO-ED1period

We present the feedback and responses later in this Section.

6.2 How did we engage?

The sessions comprised of a series of short presentations on a focus topic during which time the participants were invited to ask questions as the presentations went along. Each was then followed by a dedicated open forum to probe issues further, focusing on some of the more technical or detailed questions

The focus topics for each panel are outlined below:



The sessions provided an opportunity to use our informed stakeholders as a 'sounding board' for new ideas and we were able to collect feedback on how effective UK Power Networks' initiatives are in addressing consumer issues and concerns. This gave stakeholders the opportunity to influence UK Power Networks' objectives and future investment plans to ensure that they are in line with stakeholder expectations in delivering the right level of service.

After each event, a report was written to summarise the discussions and capture the feedback that the panel members had provided. It was then shared with the attendees along with any further information requested by the panel that was made immediately available. It also outlined the actions that the business had committed to consider further.

The Stakeholder Engagement Team then created an internal log of actions, which we monitored to ensure that all issues raised by stakeholders were examined and responded to either in reports that we produced post-engagement or through individual communication (emails, meetings, etc.).

Following the conclusion of the third round of panel sessions, the business will produce a Consolidated Report that collates all responses thematically, demonstrating which feedback we have been able to action immediately and which has been built into our business plans.

6.3 What were the views of our stakeholders?

We have undertaken a significant amount of work in clustering the feedback we have received during the panels. We have noticed that several issues have been raised repeatedly by stakeholders across the panel sessions.

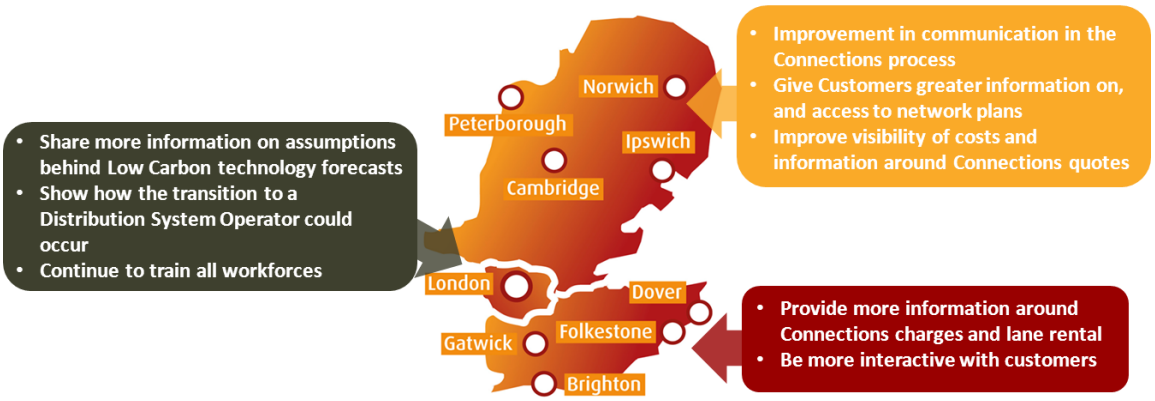
The five most prominent issues were:

Issue	Description
Transparency across the board	Greater transparency around our reporting, decisions and business processes, particularly in connections
Path to a DSO	The transition to a low carbon economy will bring about changes to our role so we must give consideration to undertaking a systems operation role in the near future
Choice in customer services & connections	Choice is seen as an important development in improving customers' services so we should encourage contestability in the market
Vulnerable customers	Stakeholders were pleased to see the business implementing measures to assist vulnerable customers, however, they would like more to be done
Customer portal	Support for allowing customers to log into a system and obtain up-to-date information on outages, our performance and on construction projects and street works

1. **Transparency:** Across panels and topics, our stakeholders have consistently asked us to become more transparent in our reporting, processes and decisions. For instance, in Connections, stakeholders have requested more detailed explanation of costs, project requirements and alternative solutions. They have told us that even seeing a breakdown of costs would significantly enhance customer experience.
2. **Pathway to a Distribution System Operator**: At our events, we spent a considerable amount of time discussing the changing role of a distribution network company from a network operator to one where we undertake a systems operation role. Our stakeholders considered this to be an important development and wanted to ensure the UK Power Networks Business Plan adequately explained the benefits and costs of the DSO model. As the low carbon agenda continues to develop, this system operation role will become more relevant. Over the next decade, a significant number of customers will become sellers of energy into the system as distributed generation grows. A DNO will need to play a balancing role, both providing electricity supply to, and receiving supply from customers. In such an environment, electricity storage will also become a relevant issue. Our current assumption is that the change to a DSO will be incremental and we will look to include the costs to support the transition to a Smart Grid within our 2013 business plan, where they can be justified.
3. **Choice in services and connections:** Our stakeholders considered competition in connections has been an important development in improved customer services and wanted to see as much contestability in the market as possible.
4. **Vulnerable customers**: A consistent theme was that UK Power Networks was implementing measures to assist vulnerable customers, however, more needed to be done. Following the stakeholder events, we have agreed to work more actively with community groups and local authorities to ensure our database of vulnerable customers is up to date and our response rates are enhanced.
5. **Customer Portal and 'Self-serve'**: At all our sessions, stakeholders considered the development of a customer portal to be an important initiative. A portal would allow our customers to log into a system to obtain up to date information on outages, our performance, construction projects and street works. We have undertaken to develop a customer portal and a 'self-serve' area by 2015 and we will continue to make improvements to it in response to customer feedback throughout the RIIO-ED1 period.

Topics by Licence Area

A number of specific issues were raised separately by licence area participants in our panels. Examples of some of these issues are illustrated below



Following an initial analysis of the issues, we sought immediate feedback from the responsible business leads within UK Power Networks associated with each issue. It was then possible to categorise actions and recommendations from stakeholders into those which we considered priority actions that needed an immediate response, more innovative solutions that required greater consideration and inclusion in longer termed plans and those that we knew from prior experience and deliberation to be difficult to implement.

6.4 Acting on feedback: immediate response

Below we present several examples of how we have listened to our stakeholders, and put measures in place to implement their suggestions or address their concerns as quickly as we could.

On issues where prompt responses were possible, we tried to close the 'loop' between feedback, action and outcome immediately after the panels. Many of such responses included providing additional information or holding one-to-one meetings.

A number of issues required us to coordinate joint actions with stakeholders and internal business leads. This led to initiatives that altered our processes, which will lead to further feedback. In other words, the feedback that we have received and acted on has changed, and will continue to change, the way we do business.

Example 1. During the discussions around Customer Services in the third set of panel sessions, stakeholders were informed that text messages with information around outages are currently not sent between 10pm and 7am to avoid disturbing customers at night.

There was a general consensus among the stakeholders that they would support a change to be kept informed 24 hours a day. On the back of this feedback, the Customer Services department will be changing the system imminently to allow text messages to be sent out in real time, 24 hours a day.

Example 2. In the open forum that followed a session on Social Obligations, a number of participants stated that UK Power Networks could do more to reduce disruptions through street works.

One stakeholder, for instance, stated that they would like to see greater coordination of works between UK Power Networks and the local authorities' planners so that road works could be planned better, resulting in fewer disruptions and leading to higher customer satisfaction. On the back of this feedback, the decision was taken to hold a separate, focussed Stakeholder Panel on Street Works which would help address all concerns around this area. The Street works event was held in London on the 23rd April and more detail can be found in Section 8.

Example 3. Stakeholders were interested to know the magnitude of the metal theft within our licence areas, what the associated costs were and how it was impacting their supply. On the back of this interest, it was decided to establish a separate seminar that would address these questions and offer the stakeholders the chance to have a more focussed discussion around the topic.

6.5 Acting on feedback: long-term plans

We considered some issues raised to be very good ideas, however, they would require more detailed consideration and may not be developed in time for inclusion in the business plan. Alternatively, they may comprise issues that would not necessarily be included in the business plan but were, in any event, very good suggestions and worthy of consideration. Other suggestions involved providing better information and communication to our customers.

We have collated these issues together with the UK Power Networks response. Appendix A.1 contains the detailed tables, a summary of which follows.

You Said	We Did	We Will Do
ENVIRONMENT		
Benchmark BCF against companies outside the electricity distribution sector	We have reduced our business carbon footprint by 24%. We have commenced broadening the benchmarking approach to include other utilities	We will report back at regular intervals with the results We are signing up to the global reporting initiative and we will target upper third performance of comparable industries. Our RIIO-ED1 Carbon footprint target declines to 76,273 tonnes of CO_2 equivalent (from the DPCR5 average of 77,812 tonnes).
What is UK Power Networks doing to minimise losses?	We are working with Ofgem on its new annual reporting requirements which will include identifying the actions that we have taken to reduce losses.	We will submit our first report to Ofgem in mid-2014 and will report back to the Critical Friends Panel.
How is UK Power Networks minimising the impact of its Street works?	We have introduced a number of key initiatives such to mitigate these essential works. These include ownership tracking, enhanced control, transparency and shared responsibility	We aim to improve the coordination of our works with Local Authorities' planners to allow better planning of road works and ensure a smoother process that minimises disruption
SAFETY		
Safety is essential and non-negotiable	Our Public Safety Team is implementing a broad and pro-active public safety strategy. A recent targeted communication campaign included the development of new safety leaflets and short safety films to help raise awareness. There has been a significant reduction in lost time injuries and total recordable injuries.	We target zero public and employee harm We will partner with third parties, such as National Energy Action, to work with local communities, councils, businesses and schools to improve safety awareness. We will continue to improve our safety performance by actively managing the network and delivering rapid resolution of issues, managing substation and providing additional security and education programmes.
RELIABILITY & AVAILABILITY		
Can we publish maps of load pinch points?	We have assessed feedback and concluded that presently it is not possible to publish maps of load pinch points due to the high manual nature of	We are currently developing a Geographic Information System (GIS) which will assist in identifying the geographic location of load and capacity requirements

	the task	
Explain why UK Power Networks is seeking a higher expenditure allowance in RIIO-ED1 when it has under-spent its DPCR5 allowance	We are on track to deliver all our outputs for the current planning period and have sought to achieve this as efficiently as possible	Our final business plans will set out: • Why our proposed RIIO-ED1 expenditure is prudent and efficient • Key drivers for any under expenditure in DPCR5.
How is metal theft impacting the reliability of the network and what steps are you taking to deter the thieves?	Metal theft in electricity substations has led to the death of 20 people across the UK and continues to affect our business. We already mark or brand many of our products, including cables and are continually exploring opportunities to improve the marking of our assets	We will continue to engage with industry and other utilities to develop marking and products, including signs, that can be considered best practice and that have been proven to reduce theft
CONNECTIONS		
Provide more information on the process for new connections	We have launched a service called 'Ask the Expert' which provides information on the connection process and assistance with new connections applications.	Next steps will likely include a phone service and live chat.
UK Power Networks should improve resourcing in connections to reduce long-lead times	We have allocated additional resources to assess and develop improvements in this process. We have reallocated the responsibility for enquiries of generation connections under 50kW to a larger resource pool.	We will assess whether bringing selected services and teams in-house delivers a more efficient process (as we have in for the delivery of small service works in the South East).
Improve transparency around how we calculate connection charges	We have changed our business process to include a post-quote call to customers in which we offer to explain our charges.	We are committed to improving visibility of how connection charges are calculated. The process for major quotations and ways to improve customer information continues to be examined.
CUSTOMER SERVICES		
Improve the quality of information provided to customers	We have amended our practice and now hold daily meetings between the Dispatch Centre and Service Delivery managers. 98% of the jobs raised now have an estimated time of restoration that our staff could provide to customers. This compares to 3% of the jobs in 2011. We are modifying our IT systems to provide you with text updates in power outages 24/7.	We will focus on the quality of information we provide to our customers and the speed at which this information is shared. We will improve our capacity for making pro-active phone calls to customers off supply. We will make use of social media to keep customers informed.
Provide cheaper numbers to call from mobiles Advise on a single national DNO contact number	We have introduced these numbers for you to call instead of 0800 numbers: London 01243 50 0247	We will examine the benefits of replacing our existing multiple contact numbers with a single number for all customer enquiries.

	East of England **01243 50 8838** South East **01243 50 8866**	
Can reliability and availability standards be made tougher	We are paying higher standards than required by the EGS – paying £100 instead of £54 as required under EGS2 for 18-hour failures While the EGS requires customers to apply for payment, we proactively contact all customers experiencing a fault for over 18 hours.	We are assessing reducing the EGS to 12 hours from 2014. We are also examining automating EGS payments. We will pay special attention to ensuring improvements for vulnerable customers.
Develop a customer database	We have introduced a temporary solution for faults and uploaded ~ 2 million customer contacts into this database.	We will develop a customer database as part of the overall business transformation programme.
Develop a Customer Portal	We have specified customer portal as an 'outcome' in the Business Transformation project.	We anticipate that we will test, if not launch, the Customer Portal by mid-2014.
UK Power Networks should offer an account manager service for larger customers	Our connections team currently operates an account approach in dealing with specific infrastructure projects and companies. We are assessing how this approach could be extended to large customers and those that have frequent interactions with us.	We will complete the assessment and report back to stakeholders with our findings and recommendations.
Sharing vulnerable customer data and supporting vulnerable customers more proactively	We sought legal advice on how we can share data. The Civil Contingencies Act 2004 allows us to share customer data with other category 1&2 responders. This has enabled us to improve cooperation with suppliers as we upload the data. We have also automated the process of uploading the data so that it is uploaded accurately and on time.	We have set up a pilot with six boroughs to pro-actively notify their Emergency Planning Teams about power cuts. We will develop triggers and response mechanisms, working closely with local authorities. We will continue to work with the British Red Cross to support vulnerable customers during power cuts.
Better publicise the Priority Service Register	We advertise the Priority Service Register via our website. We also actively engage with local authorities, medical centres, and providers of essential medical equipment which help us raise public awareness of PSR.	We will also work with the National Energy Association to develop an action plan, which will support our vulnerable customers in a targeted way.
Better inform and equip vulnerable customers	We have developed luminous stickers with our Priority Service contact number, which has been sent out to 2,000 customers on our PSR.	Encouraged by positive response, we will send a luminous sticker to each customer upon registration with the PSR. We will send out a Power Cut pack with practical items to all new members on our PSR

ENCOURAGING INNOVATION		
Provide a rationale for a strategy to move from a DNO to a DSO	Our final business plan sets out how we intend to transition to a DSO role in the next planning period	Any transition is intended to be incremental, influenced by the rate of uptake of low carbon technology. We will continuously engage with our stakeholders on this issue.
Is UK Power Networks able to use Energy Storage on its network? How would this operate in practice?	We are working energy storage solutions (e.g. on Leighton Buzzard and Hemsby). Learning is continuously disseminated through specialised workshops.	Owning and running this 'proof of concept' facility will facilitate embedding similar technology across other constrained parts of the network.

6.5.1 Difficult to implement

In certain cases, it has not been possible or suitable to implement the recommendations from stakeholders. In our action reports and review sessions, we have explained the reasons for not adopting certain suggestions.

Fuel Poverty

Alleviation of fuel poverty was raised by community groups. We are committed to working with suppliers, community groups, local authorities and Ofgem on policy options to alleviate fuel poverty through our work with vulnerable customers.

However, as our prices are fixed by Ofgem this is an area where UK Power Networks can play a supporting, rather than leading, role. We will, however, continue to explore options with suppliers and our partners, such as the British Red Cross.

System Losses

System losses are the biggest carbon contributors. Our stakeholders asked if there could be an incentives for DNOs to reduce them and requested that we forecast technical losses.

Upon further consultation within the business, we established that we are unable to specifically forecast technical losses, as at present it is impossible to disaggregate actual technical and non-technical losses (metering errors, theft etc.) from the data available.

However, in developing our investment solutions we will consider whether it is cost effective to deploy low-loss equipment on a cost-benefit basis. If deployed such equipment would reduce technical losses.

The issues highlighted above are examples of topics raised by stakeholders that will be difficult to implement. In Appendix A.1 we have provided a full list of these issues together with the UK Power Networks reason why these cannot be actioned.

6.6 How have we used actionable feedback?

The feedback collected in each Panel session was passed to the relevant owner within the business. It was the responsibility of this individual to consider the feedback generated from the panel and decide whether it should be included into the Business Plans along with a justification for this decision.

The fourth and final panel sessions were designed to give UK Power Networks the opportunity to demonstrate to the stakeholders how their input has been used by the business during the interim period. It would allow the business to show the stakeholders how their feedback had been taken on board and considered. This final panel would then offer UK Power Networks the opportunity to respond to the stakeholders to inform them whether their feedback would be incorporated into the final Business Plan submitted in July and why this final decision was made.

We have outlined the steps that were taken in making the decision and the process going forward for what will be done and by when. In certain cases, while it will not have been possible or suitable to implement the recommendations from stakeholders at this stage, the feedback will be considered for inclusion in later plans and the process for this was explained.

6.6.1 February Critical Friends Panels

UK Power Networks ran three Critical Friends' panels - one for each DNO to discuss the Ofgem fast-track proposals and to obtain feedback from stakeholders on our revised business plan (March 2014).

7 Online and postal feedback

In addition to our specific stakeholder engagement events, we sought the views of stakeholders through other communication channels, including online and written engagement.

7.1 How did we collect responses?

We invited stakeholders who attended our engagement events to write to us with additional thoughts or to invite colleagues and friends to do so.

Our online consultation was open between December 2012 and February 2013, and responses could be provided via an online survey form or by email.

7.2 Who has responded?

Organisation	
Online	By Email
British Gas	Balfour Beatty
Ipswich Borough Council	EDF Energy
St Modwen Properties	English Heritage
Morrisons Utility Services	Skanska
City of London Corporation	Greater London Authority
Mansell	Norfolk Coast Partnership
Haven Power	Suffolk AONB
South Downs National Park	Suffolk County Council (Planning)
Chilterns AONB	Norfolk County Council (Planning)
Essex County Council	Westminster Property Association/ City Property Association
South East England Councils	

Overall, the responses we received tended to focus on a handful of questions, which were obviously of particular interest and relevance to the stakeholder. Some stakeholders provided comprehensive responses.

Most of the responses received were focused on London or the main UK Power Networks draft business plan released in November 2012.

7.3 What have the responses shown us?

The three themes which received the greatest attention in the responses were:

- Investment in infrastructure (and who pays for it)
- Connections

- Network Reliability

In addition, environmental issues received some focus with stakeholders from the Areas of Outstanding Natural Beauty (AONBs) being particularly appreciative of UK Power Networks' role in the existing scheme for undergrounding of lines.

A number of responses were also received from the retail suppliers. The larger ones have typically positioned themselves as acting on behalf of end-customers, and hence tend to argue against what they perceive to be 'unjustified' spending and in favour of improved customer service. The smaller suppliers tend to argue that they can be somewhat overlooked and that DNOs such as UK Power Networks should recognise that they are in fact our direct customers. The responses also highlighted a general plea from suppliers for tariff stability.

7.3.1 Investment in infrastructure

The comments are largely focused on Central London, although stakeholders do raise some concerns regarding Norfolk and Suffolk, and perceived constraints on capacity in those areas, which they believe to be driving high connections costs.

UK Power Networks' continued focus on engaging with those Central London stakeholders with an interest in economic development has resulted in a number of detailed responses, all of which are strongly in favour of investment in the Central London network.

There are some robust views expressed over the need to invest to provide greater headroom, primarily as a means to ensure faster connections and a more reliable supply. These views are expressed both from the perspective of promoting economic development in the region, and the practicality of achieving a timely connection to a new property.

There is also diversity among the response views as to how this additional headroom should be paid for with some stakeholders arguing that the wider economy will benefit, and hence all customers should share the cost while others are very clear that the principle of the connecting customer paying should be maintained. One response suggests that UK Power Networks should contribute directly to investment in the asset base and another that UK Power Networks should pay the upfront capital cost but then be reimbursed by connecting customers, as they wish to take capacity.

Whilst the major driver for stakeholders is connection of new load, there is some acknowledgment that the growth in renewable generation will require investment in the network. However, there seems to be an assumption that it is in this area that UK Power Networks could do more to avoid/defer expenditure through, for example, the use of Smart technologies and Demand Side Response.

7.3.2 Connections

Closely aligned with the comments on investment are a range of responses regarding Connections.

Whilst these are largely directed at the experience and cost of obtaining a connection, many of these comments are rooted in a perception that the network is constrained, and hence greater investment in headroom would by definition improve the timeliness and reduce the expense of Connections.

Over and above this, there is also considerable focus on the process itself with particular criticism from developers/construction companies over the quality of dialogue and information available. Developers in particular make reference to the difficulties in obtaining a schedule for the connections activities, which they can then incorporate within the wider programme plan for construction of a new building.

As mentioned earlier, both Norfolk and Suffolk County Councils have expressed concern over the cost of connections which they argue is proving a brake on economic development. Suffolk County Council makes specific reference to the Central London plan (see Process Overview, section 7.4) and question why a similar model of investment ahead of need to provide capacity headroom could not be applied for hotspots in their area.

7.3.3 Network reliability

A number of discrete points were made in respect of network reliability and fault performance in particular.

- In London, a number of stakeholders made reference to the issue of transient faults and the difficulties that result from them. There is a broader concern that the regulatory framework does not take proper account of these, through placing some obligation on UK Power Networks to either report or to reduce sub-3 minute faults

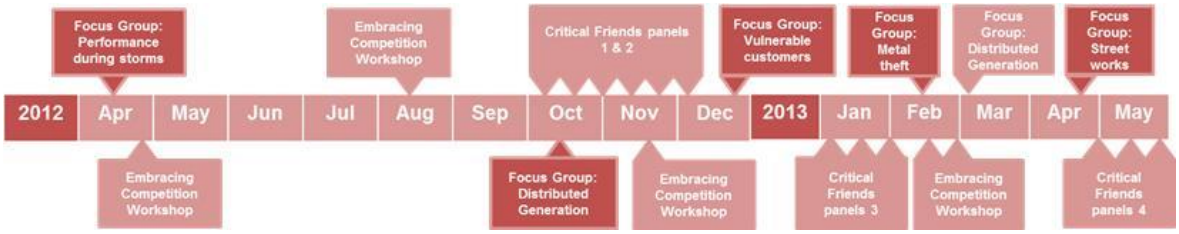
- There are a number of comments in response to the question regarding ‘maintaining current reliability’. We believe that stakeholders have possibly misinterpreted our proposals in this area, by assuming that we are content with the current level of performance. We therefore addressed this issue in our Critical Friends Panels, unequivocally presenting our position and aspiration to improve on the current performance level. The feedback we received gives us confidence that we have been successful in communicating this message
- Stakeholders are clear that their expectation is one of continuing improvement, and in a number of cases argue that this can be achieved with little additional capital cost, for example, through better process.
- Again, this also seems to be an issue which a number of stakeholders associate with a lack of headroom. There is an assumption that a less constrained network would be less likely to fault and/or restoration would be quicker/easier

8 Priority issue engagement

In addition to Critical Friends Panels, we have held a number of sessions dedicated to various issues that we knew from our stakeholders were of concern or special interest to them.

- Through our research and interaction with stakeholders, we realised that the issues of greatest concern included metal theft, storms, street works and vulnerable customers. We have made sure all of these received their own dedicated sessions.
- The topics of interest included distributed generation. The first workshop on the subject was held in October 2012. The second was held in March 2013 and was oversubscribed. We intend to hold more such events in the near future.

The timeline below illustrates the sessions we have held so far. The section on Future Engagement presents the timeline of our planned events and activities until the end of 2013.



For each event, we have sought to be thorough in capturing all issues raised by stakeholders. We then assessed each issue, developed a response in consultation with the relevant business unit within UK Power Networks and, where appropriate, started the process of delivering improved outcomes.

In some cases, implementing stakeholder feedback meant developing responses and undertaking work in conjunction with partners. In the example of metal theft, such partners include the police and local authorities. It is to this example that we turn next.

8.1 Metal theft

The Willingness to Pay research has demonstrated widespread awareness of some problems, which did not fit neatly into our consultation topics (or the Ofgem primary output categories). As such, if we had chosen to focus exclusively on the business plan consultation topics, these very relevant issues that are of concern to large groups of stakeholders and indeed the public at large could have been overlooked.

Metal theft is not only a resource and performance issue, it is a genuine safety concern: over the last five years, metal theft in electricity substations has led to the death of 20 people across the UK.

Willingness to Pay research has highlighted widespread awareness of copper theft, with many people expressing the view that ‘something’ had to be done. This concern was further reinforced through our informal discussions with stakeholders and through the formal feedback that we had collected in Critical Friends Panels.

We therefore knew that our stakeholders would welcome a dedicated session on the issue of metal theft where the problem could be discussed from numerous angles (e.g., legislation to tighten the scrap metal market, correct signage, technologies to prevent theft, etc.).

We delivered on the expectation, organising a session in February 2013, which was well attended.

8.1.1 Who was involved and how did the engagement take place?

The session comprised representatives from a number of interested organisations, including police, transport, local government and environmental bodies. During the session, speakers delivered two short presentations highlighting the issues and responses by the business.

This was followed by an interactive Case Study where stakeholders were given the chance to suggest alternative responses to a real life incident. The session ended with an Open Forum where participants could probe issues further and the group could share best practices.

The slides from the presentation, Open Forum questions on which we consulted on the day and a full report on the feedback that we have collected can be found on our website

http://www.ukpowernetworks.co.uk/internet/en/have-your-say/events-consultations/

8.1.2 What are the key issues the Forum taught us?

Your Question	Our Response	Future Action
Have you considered marking your assets?	We already mark or brand many of our products, including cables and are continually exploring opportunities to improve marking of our assets to deter or evidence theft.	UK Power Networks will continue to engage with industry and other utilities to develop marking best practice and products, including the use of signage, all of which have been proven to reduce theft.
Smart locks e.g. Zeni Locking system are a good preventative measure but these can still be physically cut and removed from site	UK Power Networks will provide details of the options currently under review to address the issue of stolen padlocks	Zeni Locking systems is just one of the options under review and we will consult with stakeholders on a range of locking options.
The response time when using tracking systems is not quick enough as it is not in real time	We will consider the option of mapping the locations where offenders are prosecuted to establish whether there are patterns. This could identify whether thefts are being carried out by organised gangs who travel to targeted sites.	This will improve planning to reduce risks at potential asset targets.
If we had a list of scrap merchants who dealt in stolen materials we could be aware of who to avoid doing business with and cut off potential sales avenues	UK Power Networks will share details of scrap merchants who are known to trade in our materials with stakeholders as requested. This is now a legal requirement following the fast track implementation of the Scrap Metal Dealers Act 2013.	A national, public register of scrap metal dealers is to be set up and run by the Environment Agency. This will come into force around October 2013
Can you distribute cable guides to scrap merchants so they know what to avoid?	We will initially focus on distributing cable guides to scrap merchants working in areas of significant levels of theft	We will monitor the impact of this initiative and report back to our stakeholder group.
What are you doing in terms of liaising with the police?	We will share locations of substations with local police and include security plans in local constabularies' induction programmes	We will continue to liaise with the police, including our stakeholder panel which has substantial representation from the Police.
Are there any other ways to make it harder for thieves to gain access to assets?	Metal theft is a global issue and UK Power Networks are pro-actively looking for ways to prevent the removal of our assets rather than ways by which we would be notified once thefts occur.	UK Power Networks will engage utility companies from other countries to share knowledge and best practice. We will share our findings from these conversations with our stakeholders.

Your Question	Our Response	Future Action
Are you doing everything to ensure criminals are not receiving inside help?	We will consider introducing criminal record checks as part of our recruitment process	We will report back to stakeholders on progress of this initiative.
Can't you recover indirect costs such as damages to appliances etc. in civil action against offenders?	We have considered this approach but have decided not to progress with it going forward. The offenders themselves usually have little by way of money / assets and although there is an option to pass the debt onto a debt-collecting agency, we need to consider the impact this would have on our Brand	No further action.
Can you distribute cable guides to scrap merchants so they know what to avoid?	We will initially focus on distributing cable guides to scrap merchants working in areas of significant levels of theft	We will monitor progress of this initiative.
Can we increase public awareness of the location of substations?	We have encouraged many community vigilance initiatives, such as our substation watch initiative, which educates the public about staff identification. This has resulted in a number of calls from the general public to report suspicious behaviour.	UK Power Networks will continue to monitor the situation.

8.2 Storms performance sessions

It must be noted that even before the Critical Friends Panel programme came into being, we had been consulting customers on issues that mattered to them. One of the examples of such engagement that predates Critical Friends Panels is our consultation on UK Power Networks' performance during storms that we held in April 2012.

A number of themes that were highlighted in those meetings have been subsequently reiterated in other sessions. The actions that we have been undertaking in response to early feedback have received a new momentum. This enabled us to collect the 'second round' of stakeholders' views and amend our actions accordingly – for example, the PSR stickers that have been sent to 2,000 vulnerable customers have undergone a change in design and format since they were first suggested in the storms performance sessions in April.

8.2.1 Who was involved and how did the engagement take place?

Following the storms in the South and East of England in 2012, which damaged some overhead cables, we reached out to our residential stakeholders in the most affected areas and invited them to two regional forums to review our performance.

The customers invited had had their power supplies affected by the high winds and were able to give feedback about how their power supplies had been restored and their expectations of the company in the future. The discussion was aided by inviting charities such as the British Red Cross and the Disabled Advice Bureau, who were able to inform us of their experiences working with vulnerable customers during power cuts, and suggesting ways in which we can help in the future.

At each forum, an event-specific presentation was given to the attendees that highlighted how the storms had affected our network and what work was being done to mitigate their impact on our customers. These presentations were then followed by an open forum discussion which allowed stakeholders to comment on the issues raised by the speaker and offer feedback about how they felt UK Power Networks had responded with suggestions for how the response could be improved in the event of future storms. There was also the opportunity for the panel to raise any other additional issues that were of interest to them.

8.2.2 What are the key issues the Forum taught us?

Your Question	Our Response	Future Actions
It's difficult to find the number to call in a power cut	Glow-in-the-dark cards and stickers have been produced that feature the UK Power Networks Freephone number and a trial has been launched to distribute these to customers on our Priority Service Register (PSR).	We plan to send out a Welcome Pack to customers on our PSR too. This a brand new service that we are offering and contains items and information they may find useful, including a corded telephone and a key-ring torch.
Telephone number should be promoted more widely to organisations and charities which support the vulnerable	We have since held a Focus Group that addressed the concerns around Vulnerable Customers on our network. In this session we raised awareness of how we can support our Vulnerable Customers with a number of charities and local authorities.	There is a project in place to identify and contact the major charities within our footprint that will aid us in raising our brand profile and bring about greater collaboration.
We would like to be informed when power supplies have been restored	We have set up a SMS alert that informs all registered customers when power supply has been restored to their area. We will also inform anyone who has contacted us about their outage through Twitter.	With the development of a new telephony platform, the longer-term plan is to implement a process whereby customers are notified when power is restored via an automated telephone service and/or by an adviser.

Customers also told us that they didn't expect power failures to last more than 1.5-2 hours and that messaging information should be updated every hour.

UK Power Networks understands the customers concerns and took the action to ensure that their emergency teams update messaging information every hour. It was explained that power failures are rectified as soon as possible but sometimes complex repairs such as underground cable faults take time to locate, excavate and repair. The stakeholders were reassured that we always look to re-route supplies quickly, if possible.

Some stakeholders commented that they would like to be informed when power supplies had been restored and would rather talk with an agent than listen to a pre-recorded message when they contact the call centre. UK Power Networks agreed that ideally customers would always get to speak to an agent and a dedicated pro-active call-back team could ring customers following the restoration of supply but that this was not always possible given the large number of customers that can be affected by a fault.

8.3 Vulnerable Customers

It became apparent during our Critical Friends' panel sessions that the ways we support Vulnerable Customers on our network is of utmost importance to our stakeholders. Yet we are also aware that we are a DNO and our responsibility is different to that of a supplier. We therefore decided to hold a dedicated session at which we could engage with the local authorities, suppliers and customers in a roundtable discussion.

8.3.1 Who was involved and how did the engagement take place?

Stakeholders representing a range of organisations including local governments, charities and the energy industry joined us for a focus panel that demonstrated to stakeholders the work we are currently doing to support our Vulnerable Customers. The session allowed an opportunity for the stakeholders to engage with us further around this topic via an open forum discussion.

8.3.2 What are the key issues the Forum taught us?

You Said	Our Response	Future Actions
How do you maintain a register of Vulnerable Customers?	Customers are billed by their supplier so we do not currently have an up-to-date database; however work is now underway to update this. We have also been producing self-addressed envelopes so our customers can inform us, free of charge, if they require any special consideration. These are with our printers and will be distributed shortly.	Our objective is to keep the register relevant and to develop systems that add and remove customers from the register on a more timely basis. Our plan is to develop a more robust tracking system by contacting each

You Said	Our Response	Future Actions
		customer on our Vulnerable Customer register on an annual basis so that we can update our records. We will also continue to work with community organisations and through advertising to identify as many new vulnerable customers as possible.
How do you handle data around Vulnerable Customers? Can this be shared with other parties?	We reviewed the terms of the Civil Contingencies Act 2004 and have since set up a project to share customer data with local authorities. A project has been set up to contact all local authorities with a view to collecting data on known vulnerable customers on our PSR to ensure they receive the support they need during power cuts.	Following on from this initial research we have now set up a project to build relationships with our Local Authority partners with a view to sharing this data. We will continue to pursue our current approach and monitor the success of our partnership with Local Authorities.
Occasionally more than one organisation will attend a Vulnerable Customer during an outage	Following feedback on the lack of coordinated response between Local Authorities and British Red Cross during outages, we now notify Local Authorities when there is a British Red Cross or Customer Champion activation.	We have developed a panel of Local Authorities with whom we will agree a communication strategy. This will decide on a wider set of triggers for notifying the Local Authorities of an outage on our network. For example, should there be a prolonged fault involving a larger number of customers.
What can UK Power Networks do in the poorer parts of the community?	We have signed up as business sponsors to the NEA and are considering a range of initiatives that will support vulnerable and fuel poor customers	We will work alongside the NEA to undertake local profiling and analysis of our customer base. This will give us greater visibility of vulnerable customers on our network and allow us to map organisations that can provide on the ground assistance and support.

8.4 Street works

This priority issue session was arranged following requests from stakeholders during the Critical Friends panels that they would like the opportunity to engage with UK Power Networks around the impact of its street works. They added that they would appreciate the chance to discuss the potential of a greater coordination of works between UK Power Networks and the local authorities' planners, as well as understand the current procedures in place to minimise disruptions.

8.4.1 Who was involved and how did the engagement take place?

The panel comprised of representatives from a number of interested organisations, including transport bodies, local authorities and other utilities.

The session involved a presentation highlighting the work being done by the company to ensure that company to minimising their impact on others and how their performance around street works is critical to this, as well as highlighting measures that have been introduced to improve the performance. The second half of the session was dedicated to discussing Lane Rental charges as comments from customer surveys have emphasised how the largest dissatisfied for our customers and that, given the cost of the Lane Rental charge as a proportion of the overall connection costs, small service connections are particularly sensitive to these charges. Following this, there was an Open Forum where participants could probe issues further and the group could share best practices.

8.4.2 What are the key issues the Forum taught us?

Your Question	Our Response	Future Actions
Can the 1 month timescale currently quoted for Section 81s (damaged apparatus on the highway) be reduced?	We are required to respond within 2 hours when damages are logged as an emergency, whereas for all other repairs we attend within 30 days	We recognise stakeholders' concerns and will explore ways to amend the reporting system and create a plan to reduce the one month limit over this year
Rather than work to the statutory notice periods, UK Power Networks should share their plans to complete work as early as possible.	For all major network upgrades we try to provide information as far forward as possible via London Works or at local coordination meetings. For new customer connections we are very much driven by customer demand/availability and approval to go ahead via payment. Reactive fault work which is the most common reason for excavating the highway is reactive and we have no knowledge of where or when such events will happen, but we do have a statutory obligation to restore supplies as quickly as possible as we are measured on Customer Minutes Lost (CMLs)	We will continue to share information with Local Authorities as promptly as possible and will actively participate in any mechanisms/forums which facilitates improved working with local authorities and highways agencies.
When digging a trench, UK Power Networks should ask whether there are any other utilities that may have a need for the trench that could complete the reinstatement	The majority of our work relates to repairing a fault or a new customer connection where the excavation is small and localised. Only about 4% of our work involves long trenches. For all major works UK Power Networks provides as part of the road works coordination meeting held by local authorities, information on the when and where our major work will be carried out. This has facilitated a number of incidences where trench sharing has taken place.	We will continue to seek the opportunity to cooperation with other utilities, however, the size of excavations required for electricity work is narrower and shallower than those required for say water or gas so it is more likely we would use a trench dug by these utilities rather than digging larger trenches and incurring more cost, disruption and liabilities Alternatively where there is a road closure planned, we will look to see whether any of our work can be brought forward and undertaken whilst that closure is in force, thus avoiding a future closure.

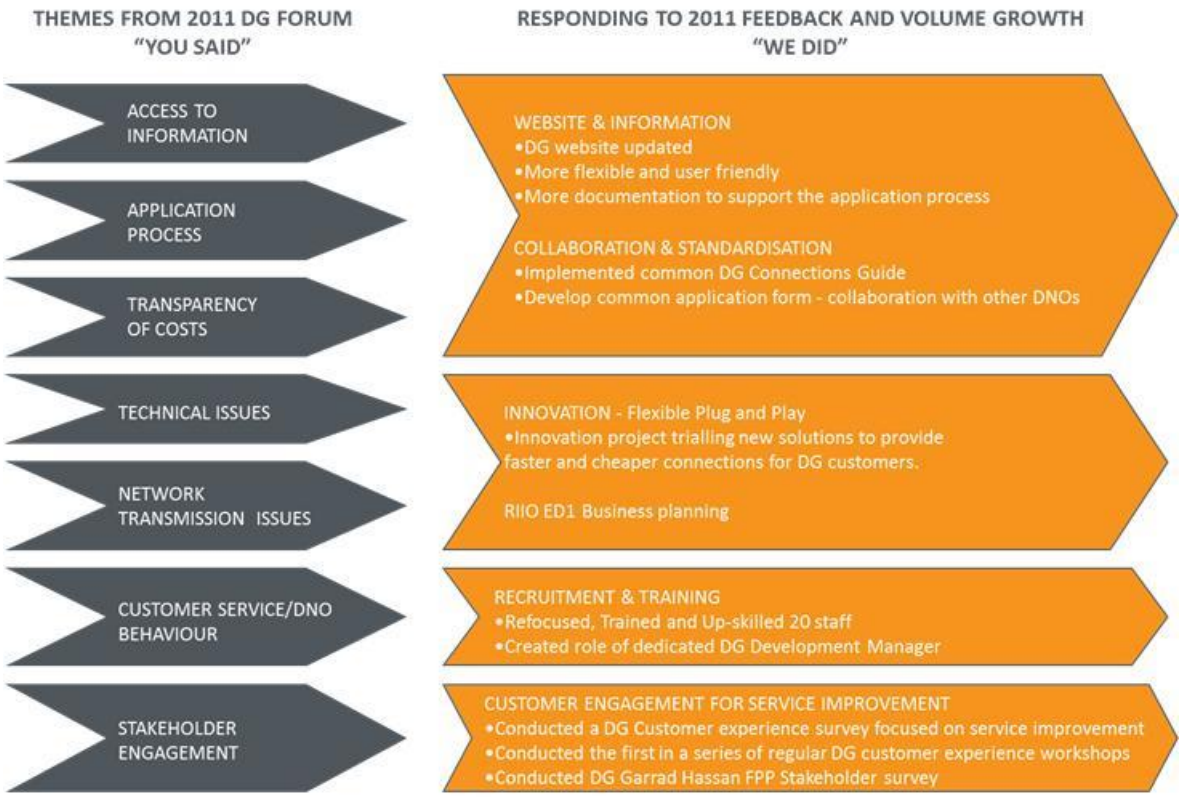
8.5 Distributed generation

We want to be recognised as the best DNO provider of connections to the Distributed Generation community in the UK. We started our engagement on this issue in 2011. A comprehensive plan has been developed with input from our stakeholders. We have also established a Distributed Generation Steering Group that will deliver our cross-Company improvement plan as well as continuing to working with other DNOs where appropriate. The Connections department has made significant improvements to many aspects of its business recently but acknowledges that the journey is not yet complete and this is reflected in feedback that has been received from stakeholders who have highlighted areas that still require some focus.

8.5.1 What are the key issues the Forums have taught us?

On the back of our engagement, a comprehensive plan has been developed that takes into account stakeholder opinion and covers the issues that have been identified in the sessions.

Below we provide the overarching overview of the feedback we have received. We also provide a detailed breakdown by action of what we have undertaken and are yet to undertake.



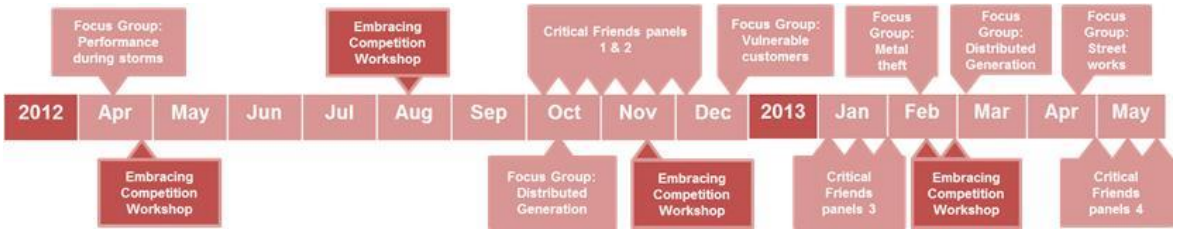
8.5.2 We have also highlighted a more comprehensive list of actions to have come out of our DG Forums

You Said	Our Response	Future Actions
We want improved customer service for distributed generation enquiries.	We have committed additional specialist resources to the design and quotation service to shorten timescales. We are also committed to reduce the average quote time by 25% from the 2012 level. We have nominated a clear point of contact for customers.	UK Power Networks will review our operating model to ensure best practice. UK Power Networks will host regular workshops for customers and industry stakeholders.
How will you measure customer satisfaction?	We have set up an independent month customer satisfaction survey, targeting a score in the upper third of DNOs by July 2013.	UK Power Networks will look into recruiting non-technical support to deal with the growing volume of DG queries and organise regular DG open forums.
DG awareness levels vary depending on who we speak to within the organisation.	We have refocused, trained and up-skilled 20 members of our staff to handle DG enquiries and assess applications.	UK Power Networks will ensure key account managers know staff training requirements.
The website needs to be improved.	We have updated the UK Power Networks DG website to be more flexible and user friendly. We have also provided more documentation to support the application process.	UK Power Networks will continue to review feedback and update our website accordingly.

We are confident that successful delivery of the initiatives will provide real benefits to our customers and a performance that will help deliver a position as a leading DNO.

9 Competition in connections

We believe the best way to understand competitors' needs is to ask them directly and our whole approach to Competition in Connections has centred on stakeholder engagement. Since November 2010, we have run 10 workshops with our competitors, going through cycles of surfacing issues, agreeing action plans and reporting on and testing acceptance of progress against those plans.



Competition workshops are now established as regular events, with a commitment to provide these sessions on a permanent basis. In all, 49 different individuals have represented 29 ICPs (Independent Connection Providers) and IDNO companies at one or more of these events.

We use the information fed back from these sessions as the basis for our competition development programme, managed by our dedicated competition development manager. While there has been positive feedback, we recognise that the process has not been without its challenges and that there is still work to be done. We will continue to work closely with our stakeholders in shaping our improvement plans and devising tangible actions. Further, we will work with subsets of this group to develop specific improvement solutions, including a more efficient process for ICPs to secure land consents.

9.1 Key messages

Following on from our "Embracing Competition" workshops a number of key themes have emerged. The main issues that have been raised are summarised below:

- Extension of contestability – the most highly raised issue
- Evidence of ICP incentive to compete – the second most highly raised issue
- Knowledge share – UK Power Networks have put steps in place to ensure that they collaborate and share knowledge with competitors as much as possible
- Process improvements – many process improvement suggestions and usability comments e.g. websites, have also been incorporated into our approach going forward

9.2 Priority actions

UK Power Networks have created a competition development plan – a list of prioritised actions along with key sponsors / owners for associated tasks. This helps to ensure the actions that we take away from each of our engagement sessions are followed through whilst maintaining focus on the key topics and issues affecting competition within the networks.

A summary of the immediate actions that we have taken away and are currently working on have been summarised below.

"You Said"	"We Did"
"We need more people to engage with extension of contestability"	"We are actively seeking additional participants to the extension of contestability pilots as well as the point of connection self-ID pilots whilst we continue to engage with the Ofgem consultation process"
"We have not seen sufficient evidence of incentive to compete"	"We are meeting with the ICPs on a 1-2-1 basis to identify competitor-specific issues, preferences and priorities"
""We want the websites to be more user friendly"	"Our new, user-friendly G81 library site went live in October 2012. We are engaging with ICPs to collect feedback on ways we can improve the customer experience of the NERS website"
"We receive little direct feedback from customers"	"We are investing more time in engaging directly with our customers. • To ensure that customers understand their competitive choices and the processes around them • To obtain more specific feedback"
"We want to understand what other DNOs do better"	"We will collate best practice examples of industry approach to share knowledge and experience and create better competition"
"The convertible quote process needs to be improved"	"We have now piloted a more streamlined solution which allows a simple conversion to ICP quote . This means there is no need to re-create new 'DNO Works' quote for ICPs"
"We need better access to network records"	"We have agreed an approach with the Ordinance Survey. 36 users have registered for access to 1:500 plans since January"
"The ICP acceptance procedures are unhelpful"	"We now have monthly training dates scheduled. We are reviewing our processes and will communicate these shortly, which will include service level standards"
"We want to see processes simplified"	"We have removed unnecessary steps and bureaucracy , improved the visibility of delivery schedules, created a more consistent approach between different UKPN areas / designers and carried out a review of non contestable charges"
"We want to be kept informed"	"We are developing and publishing further new content on G81 and communicating the release of LV diagrams for EPN and SPN"
"You have introduced a large number of changes in the last 2 years. Will you test these improvements?"	"Many of our improvement actions have only happened recently, however we do intend to: • Ensure we test that the changes make a difference • Track, report on and ask competitors to validate improvements"
"Employees need to be made aware of competition in connections issues"	"We have delivered briefings to just under 3000 people across UKPN on content including: • What is competition – legal aspects and roles of ICP, IDNO, Lloyds Register • Impacts throughout the end to end process • Growth in volumes of competitive enquires • Extending the scope of competition • Behavioural implications for each part of UKPN – including behaviours to be avoided / encouraged"

10 Electricity regulation working party

Given the importance of London to the national economy, UK Power Networks established a formal process to work with key London stakeholders to identify major electricity infrastructure issues affecting central London.

10.1 Who is involved and what is their role?

The "Electricity Regulation Working Party" was set up, comprised of representatives from City of London, City of Westminster, London First, City Property Association, Westminster Property Association and the GLA, to work alongside UK Power Networks to challenge their business plan submission for the RIIO-ED1 process. This working party has met monthly since April 2012 under the chair of Philip Everett from the Corporation of London.

The Working Party's aim is to ensure that sufficient and timely investment will be made to upgrade UK Power Networks' network, to assist developers in providing the optimum office environment, so that Central London remains well placed to attract new business and support the development of existing businesses. Whilst issues such as this may seem less pressing during a time of reduced economic activity, supporting jobs and growth and promoting economic recovery is a key priority for all members of the group, and maintaining London's position as a world leading centre for business.

10.2 What are the key issues the Working Party has taught us?

The Working Party, drawing on external consultancy support, looked at UK Power Networks' proposed plans for the reinforcement of the Central London network, in the context of the existing regulatory framework. This analysis gave rise to the following issues:

- Unclear whether Ofgem will view Central London differently from other areas of the UK (given its contribution to the UK economy), by allowing UK Power Networks to undertake anticipatory investment in additional network capacity and resilience
- No incentive for primary substations to be built nearer to areas of high demand, or for UK Power Networks to show this was a better long-term solution than several customer connections, and thus to allow fewer and shorter length of customer connection routes, avoiding potential continual excavation of the same streets, and causing severe disruption to pedestrian and traffic flows, and adding time and uncertainty to the provision of connections
- No incentive / penalty for UK Power Networks to ensure that large connections are delivered within a reasonable timescale, and no way of assuring that development programmes will not be impacted
- No granularity of UK Power Networks demand modelling (used to inform investment plans during RIIO ED-1 period), and no mechanism for incorporating such that customers could understand the long term planning for Central London
- No new incentives to allow greater transparency of costs to developers, nor any way of ensuring that UK Power Networks could show they had balanced reasonable disclosure of cost with commercial confidentiality
- No provision for developers to be credited with at least part of the electrical load freed up from the demolition of existing buildings when constructing a new building on the same site, and how this impacts on the network
- No mention of the potential for alternative tariff for Central London, whereby business users would pay a premium for greater capacity and resilience and a faster installation time, without affecting other DUOS customers

- No incentive for UK Power Networks to promote greater demand management and more efficient use of their network, and reduction in energy use by providing a “standard size connection” to any development site to guard against developers / businesses reserving too much load (some of which will not be used)

10.3 What were the outcomes?

Getting the balance of efficient costs and increased connection times between general existing customers, new connection customers and DNOs is not an easy task, particularly when forecasts are fixed for eight years and are required 2 years before they come into effect. Effective stakeholder engagement on UK Power Networks RIIO-ED1 business plan is therefore important to ensure that there is a more balanced accommodation of all of the connection drivers in the RIIO-ED1 settlement. UK Power Networks, with a range of stakeholders has been examining potential alternative arrangements for the RIIO-ED1 settlement and has identified seven potential alternatives.

Option 1 - reduce the level of utilisation in central London to upper quartile or average DNO utilisation.

Through discussions with stakeholders UK Power Networks has identified that there are geographical areas in Central London that have a strong likelihood of high capacity growth during the RIIO-ED1 price control period and these areas have a coincidence of high network utilisation. To ensure that the network development in these areas remains co-ordinated and cost efficient for all customers, UK Power Networks has included the costs of these developments in their RIIO-ED1 business plan. This is subject to an initial efficiency review.

UK Power Networks has identified three such specific areas in the LPN area – Vauxhall Nine Elms, the West End and Sydenham and Eltham. UK Power Networks has commissioned an independent review, under joint control with Ofgem, of these schemes by SKM. Subject to this review, UK Power Networks is proposing to include these schemes in its RIIO-ED1 business plan submission in March 2014.

Option 2 – Sharing the long term benefits of strategic investment between DUoS customers and Connection customers.

As discussed at the Mayor’s London working group on the 15 January, Ofgem have recognised that in some circumstances long term strategic investment could lead to lower costs for all customers. Therefore, if DNOs can demonstrate to Ofgem that there are benefits to DUoS customers of a strategic approach, then the RIIO framework will consider allowing DUoS customers to fund up to the level of investment they would have done under an equivalent incremental approach. In practice, Ofgem would expect DNOs to pass some of the cost benefits on to DUoS customers in recognition of the increased risk they are taking. This position was confirmed in the RIIO strategy decision document published on the 4 March. This will still require an initial application from a connection customer to enable the appraisal of the long term least cost appraisal of costs.

Option 3 – Invest ahead of need in specific locations funded through the RAV but offset the RAV growth when new connections are made.

UK Power Networks has suggested that the regulatory framework could be modified to allow the funding of “strategic” network investment ahead of need whilst discounting future connection revenue from the RAV. There are a number of potential investment projects in central London that could see a reduction in the total costs (DUoS funded and Connections charge revenue) of network investment through advanced co-ordination and delivery. UK Power Networks has suggested to Ofgem that it would be willing to take an additional penalty if the agreed projects are not delivered on time.

This approach would require DUoS customers to take on the potential stranding cost risk if the expected number and size of connections does not materialise in the agreed time period. UK Power Networks has proposed to Ofgem that it would be willing to share this potential stranding risk between its shareholders and customers through the application of the IQI sharing mechanism to the stranded costs.

However, it also requires a change in primary legislation to allow the development of network infrastructure before a formal connection application has been received. This is unlikely to be achieved within the near future (before 2015) and Ofgem have raised two further concerns with such a change in primary legislation. Firstly, the proposal potentially undermines the core connection charge methodology principle that the connectee should fund the connection costs attributable to the connection. Secondly, the change in primary legislation could be applied anywhere across the UK and this could allow DNOs to be seen to gold plate their networks through inefficient levels of network utilisation

Option 4 - UK Power Networks to fund investment either through existing licensee or new IDNO.

UK Power Networks recognises that it could take the decision to invest ahead of need outside the existing or future regulatory price control settlements. However, this investment would carry a higher risk than the current weighted average cost of capital allows for as UK Power Networks would carry the full stranded cost risk if sufficient network connections do not appear in the agreed timeframe. UK Power Networks has indicated that it would not be prepared to underwrite the full stranding risk

A further potential option is to make advanced investment through an IDNO. This potentially would enable the recovery of higher returns enabling the pricing of stranding cost risk into connection charges. However, following the setting up of the an independent licensed operator to manage the Olympic network, Ofgem made changes to the licensing regime that protects consumers from an existing licensed Distribution Network Operator (DNO) earning higher than the existing allowed regulated returns.

Option 5 – A lead developer/consortium applies for a connection.

The current connection charge methodology allows a connection applicant to "opt" out of the existing connection charge methodology using a section 22 application. This type of application enables the DNO and the connectee(s) to negotiate the terms of the connection, including additional cost and risk recovery. This type of agreement would enable a lead connectee to agree site specific terms and conditions with the DNO if further connection were made to the network. This type of connection has been used in specific circumstances in UK Power Networks' network, specifically Canary Wharf. Under a section 22 agreement the connectee does not have to be the final end user or land owner and could be a government or other agency. This approach would also enable the beneficiaries of the connections to pay a proportion of the connection costs. This option would further benefit from the extension of the allowed period under the second comer regulations. This would enable a Customer led investment to increases the period over which they might reduce the net capital cost.

After further consultation, stakeholders have indicated that this approach would not overcome one of the fundamental issues with the existing connections framework that the first comer is required to take on a disproportionate amount or all of the additional stranding risk. Furthermore, stakeholders have indicated that there are significant practical issues in developing a consortium approach. The timing of required final connection timescales will vary across different projects making the agreement of payment schedules and delivery timescales hard. Furthermore, each time the consortium membership change there is a need to renegotiate the agreement, leading to further delay and cost.

Option 6 - Shallow connection charges for large new development areas.

The current connection charge methodology in transmission applies a shallow cost recharge approach where customers only pay for the site specific sole use asset costs. It would be possible to modify the existing connection charge framework to allow shallow connection charging for specific distribution customers. For example it could be applied to customers who connect at 132kV or above. This change in methodology would require the agreement of Ofgem and other industry stakeholders.

Option 7 – Vintageing of Connection applications in an agreed geographical location.

UK Power Networks has been considering the option of trying to manage a consortium of connection applicants through the use of a defined development zone with the application of a vintage of application. Once an initial connection application has been received by UK Power Networks in a known development area and or a constrained network (exact characteristics would need to be defined) – UK Power Networks would publically declare a connections application "vintage" for a specific time period. This would enable the pooling of connection applications into a strategic investment project. However, without further changes to legislation, UK Power Networks would be obliged to provide a traditional connection to a customer in the development zone and would not be able to force the customer to wait for a co-ordinated connection solution. UK Power Networks is looking to work with stakeholders in the remaining two years of DPCR5 to trial this solution and will be looking to include it in its RIIO-ED1 business plan.

Theme	Topic / Issue	Outcome / Action
UK Power Networks' revenue structure	Is revenue from Distribution Use of System (DUoS) and charges received from customers requiring a connection collected as part of UK Power Networks revenue structure?	No – developer funded investment (such as 33KV network) does not become absorbed into the Regulatory Asset Base.

Theme	Topic / Issue	Outcome / Action
Common Connection Charging Model (CCCM)	CCCM is based upon "shallowish" sharing mechanism, whereby those requiring new connections for their sole use must pay for entire asset and contribute towards proportional network reinforcement.	We will work to ensure individual customers are not unfairly burdened with connection charges..
"Second comer" rule	There are very few instances where developers have been refunded as a result of another party connection. Hence no transparency for developers to review whether they are entitled to refunds.	UK Power Networks will share revisions to proposed Common Connections Charging Model.
Benchmarking study	Possible benchmarking research to be undertaken into regulatory frameworks for DNO's in other global financial centres, to highlight areas of best practice that could be built into the business plan.	As part of our early work we undertook a benchmarking study across our global holding company. Further studies are being considering by the working party.
Time to connect	A 'Time to Connect' incentive to be considered as part of RIIO – including how this will work for the larger more complex connections.	Was proposed to Ofgem as part of the working group and accepted, a Time to Connect incentive is now included in the RIIO package.
Sharing of delivery risk	Sharing of delivery risk i.e. developers to receive damages for untimely delivery of supply, to be discussed.	There is now an incentive to deliver to time and quality (above).
Anticipatory investment.	Ofgem's Flexibility & Capacity Working Group 1st August meeting will be the key date for debate surrounding building additional headroom capacity into UK Power Networks' network, and anticipatory investment.	Circulated details of meeting to all Electricity Regulation Working Party members and updated.
Development pipeline data	City of London (CoL) office trajectory (which can provide a planning window of 10 years) shows commercial office development is the biggest user of electricity.	This will therefore form the main driver for UK Power Networks load forecasts in future business plan.
UK Power Networks LPN substation upgrade	UK Power Networks have proposed several substations in LPN region to be upgraded as part of RIIO-ED1 process. Plan outlines summer and winter peak load, available firm capacity and available headroom (for new connections).	Provided mapping showing CoL & Westminster Development pipelines in proximity to proposed reinforced LPN sites.
Building the case for special consideration for London	The DPCR5 settlement accorded UK Power Networks a small amount of extra revenue to account for regional variation in labour costs.	We have demonstrated in our business plan (see section 5.2) that: Future load growth requirements of London as being more expensive (operating and labour costs) The difficulties of operating in London's dense urban environments and The impact of land values
UK Power Networks Central London Strategy	A new Grid Supply Point (GSP) at Islington in 2016 will provide 575MW additional capacity. This will support the Central London Network by taking existing load off other substations. Some substations will be used to transfer load from those at full capacity, freeing up additional headroom across the CBD to accommodate new connections.	We are proposing over 2GW (gigawatts) of additional load across Central London, even though firm orders for the period are just over 1GW, because the excess will account for future need.
LPN Anticipatory Investment	The £210m which UK Power Networks have included in their draft business plan to invest ahead of need will fund 6 new substations in the LPN area. Investment will fund additional network resilience as well as new substation capacity.	Ofgem have confirmed that investment ahead of need is not supported by the current regulatory framework. They also confirmed that they do not believe there is a need to update the framework. As a result UKPN has reduced the original investment of £210m to £140m.

10.4 How has the Working Party altered our draft business plan?

Stakeholders have provided strong feedback in UK Power Networks RII0-ED1 business plan consultation that there needs to be a review of the existing connection arrangements. Stakeholders have also indicated that they see considerable difficulties in making option 5 a viable solution.

Ofgem have previously indicated that option 3 requires changes to the legislative framework, which will take several years to achieve. It also has the unintended consequence of allowing similar reinforcement across the UK without sufficient DNO justification. They have therefore concluded that there is no need to change the current legislative framework. Ofgem recognised in the RIIO decision document that where the benefits from long term strategic reinforcement can be proved to be lower costs than incremental investment, the strategic investment should go ahead. The benefits from this investment should be shared appropriately between general (DUoS) and connection customers, recognising the stranding asset risk that DUoS customers are exposed to (option 2).

UK Power Networks has indicated that it is not able to effectively manage the stranding cost risk associated with option 4. Particularly as it is unable to create a private network and keep any outperformance beyond the existing regulatory rate of return. However, we are supportive of Option 5 but recognises that it still requires stakeholders to co-ordinate their activities and therefore is not directly within their control. To mitigate this we are planning to pilot option 7 in specific “green” development zones in the remaining two years of DPCR5. This will become part of our RIIO-ED1 Business Plan. Finally UK Power Networks has decided to include a number of large network infrastructure projects in its core RIIO-ED1 business plan under option 1.

In summary in the final business plan UKPN has:

- Reduced the amount of additional investment in central London from £170 million to £100 million to comply with existing regulatory investment criteria;
- Introduced additional resources to improve our operational response to faults and increase preventative inspection and maintenance of our central London network. This has increased our annual expenditure by £4.5 million and is estimated to reduce CI by 0.2 and CMLs by 0.3 per annum.
- Included £40 million of expenditure to improve the resilience of its London network

10.5 On-going stakeholder engagement in London

We have discussed with stakeholders whether they feel there is benefit to continuing the Working Party beyond 2012. Stakeholders have expressed an interest for the Working Party to continue but have questioned whether meeting monthly would be required and have therefore suggested that the Working Party should meet every six months. Its high level objectives going forward are:

- UKPN recognises that the current business plan does not meet all of stakeholders expectations and has committed to work with stakeholders to continue to examine further investment options.
- Review UK Power Networks customer service performance for connections in London
- Review UKPN’s long term development statement for central London
- Agree and monitor key performance indicators for central London including CML’s and CI’s
- Review progress against the final agreed RIIO-ED1 business plan
- Continue to provide a forum for key London stakeholders to raise concerns about the electrical infrastructure in London

11 Low carbon stakeholder engagement

11.1 Our approach to low carbon innovation

UK Power Networks has a broad portfolio of projects investigating smart grid technologies and new, innovative commercial arrangements, as can be seen in the Innovation Strategy and Smart Grid Strategy referenced throughout this strategy. Such innovation cannot be undertaken effectively without significant buy-in from stakeholders, particularly our customers.

The aim of our innovation strategy is to continue to provide our customers with value for money while developing our network to ensure it can meet future needs and demands within a low carbon economy. Interaction with our stakeholders helps us clarify what is needed, prioritise our options and review what is achievable.

We keep the interests of our customers and stakeholders at the heart of everything we do and, aim to ensure they are offered the best care and service possible. This is evidenced through the delivery of a customer engagement plan for each project. These customer engagement plans are carefully reviewed within our business before being sent to Ofgem for approval.

11.2 Identifying our key stakeholders

We take time at the early stages of our projects to refine and develop key stakeholder groups, their areas of interest and to consider the best ways to involve them and keep them informed throughout the life of the project. Our larger projects, such as Low Carbon London and Flexible Plug and Play have bespoke Stakeholder Engagement Plans which were produced at the embryonic stage of the projects and are regularly reviewed, and where necessary updated, to ensure they are still current and relevant.

Our stakeholders range from our residential and business customers to local authorities charged with planning and implementing the Government's low carbon policies; our suppliers and delivery partners; renewable developers; energy suppliers; our fellow DNOs and the transition system operator (TSO) in our area, National Grid; trade associations and customer interest groups.

11.3 How stakeholders influence our innovation choices

Many of the opportunities that UK Power Networks have in place to interact and engage with our stakeholders provide rich food for our innovation planning. Through these opportunities, we have consulted with people from a wide range of organisations and representative bodies,

A key example of this is provided by the discussion at one of our Critical Friends Stakeholder Panels where a local authority representative and a property developer both directly fed into one of our long-list of seven LCNF Tier 2 project ideas for 2013.

As a result of the comments at the Panel and further discussions with these stakeholders, a project concept was developed. The discussions revealed that local authorities are often on the front-line of implementing the low carbon agenda, both through the actions they take to secure energy efficiency measures for their residents and, increasingly, in areas such as communal switching of suppliers; and by setting conditions on local development to ensure that it contributes to new low carbon infrastructure.

11.3.1 Stakeholder involvement in building and executing our innovation portfolio

Our stakeholder groups have been involved in different ways in helping us develop and implement our innovation projects whether as trial participants, project partners or as critical friends and sounding boards. Some important examples of this different type of engagement and involvement as listed below:

Flexible Plug & Play

Flexible Plug and Play (FPP) is one of our major LCNF Tier 2 projects, trialling a number of innovative technical and commercial solutions for the connection of distributed generation (DG) to the distribution network. At the heart of this innovation project is an on-going commitment to stakeholder engagement. Issues and barriers arising from the connection of DG to the distribution network highlighted the necessity to enhance stakeholder engagement with a view to improving the overall customer experience in the distributed generation connection process. The aim of this engagement is to better understanding the needs, concerns and viewpoints of DG developers, other DNOs, renewable generation developer trade associations, local government, and regulatory and policy-making bodies in the context of the FPP project, and their current activities in this area. Some of the most important findings related to DG developers' views on 'curtailment', which involves the DNO signalling when there is no remaining network capacity and the generator turns down its output until the constraint is alleviated. Generator curtailment was perceived as offering substantial opportunities, which could be implemented as part of Active Network Management schemes to optimise the export of multiple generation developers onto the distribution network in the face of known network constraints. These findings have been absorbed into the project and on-going engagement also ensures that the customer / DG developer can influence and input into the innovative technical solutions and commercial framework being developed by the project.

LCNF Forums

UK Power Networks are working with National Grid and other DNOs to examine the interactions between the DNOs' studies, as part of another major LCNF Tier 2 project, Low Carbon London, into Demand Side Response and National Grid's procurement of reserve services. This provides a forum in which we openly discuss areas in which DNOs and TSOs have competing or overlapping requirements and which are best met by expanding the overall base of participants involved in reserve services and demand response, and areas in which we have requirements which are complementary and not in conflict.

Data Sharing

We share data with other DNOs, anonymously where required, in order to understand differences in our approaches to innovation projects and to identify better methods. This has frequently taken place under the Strategic Technology Programme subscribed to by all DNOs.

KEMA Survey

An IFI project to investigate the opportunities that might exist for distribution networks in using active customer engagement to introduce demand management contracted KEMA to carry out a survey of industrial and commercial (I&C) customers. This survey allowed us to hear direct feedback about the appetite to be involved in Demand Side Response. Sample customer trends were analysed in order to understand the extent to which on-site demand can be mitigated during peak periods. A further investigation was carried out to analyse the mix of services (essential and otherwise) employed within each of the premises and how mitigation strategies would work with each of the services. The project has been further informed by an international investigation of demand side options, where the most prominent (and likely to be the most appropriate) options have been considered in the context of the project itself.

11.3.2 Keeping customers informed

UK Power Networks, as we do with all our maintenance work on the network, informs local residents of innovation project activity happening in their neighbourhood and how the work we are doing may affect them. This happens irrespective of whether they are interested in the outcomes of the innovation itself. An example is the letter sent to every resident outlining one of LCNF Tier 1 projects that took place in Islington, North London. The letter explained the purpose of the project, its duration and likely impact on customers and how the results could help to improve the reliability of their future electricity supply.

11.3.3 Sharing the learning from our innovation projects

In addition to the reports produced at the end of our projects with findings and recommendations, members of the Future Networks Team at UK Power Networks are regular presenters at major national and international conferences. We also organise and deliver our own events for stakeholders at key milestones within our projects to share our learning and discuss next steps.

Some of these events include a 'workshop' element were we actively seek stakeholder's ideas and views as to how next steps should be developed. One such event was a workshop held by the Low Carbon London project to share the objectives of one of a number of trials being run under this wide ranging piece of work. The trial was one planned to monitor and control larger scale distributed generation installations to investigate how such installations could support the network at times of peak demand. The audience was made up of local authorities, facilities managers, developers, other DNOs and others from energy related organisations. After hearing about the aims of the trial and then about the issues that we were encountering with recruiting I&C participants, the audience was asked for their input in overcoming these issues. The ensuing discussion was extremely productive and enabled the trial to pick up momentum in its recruitment phase.

11.3.4 Integrating the results from innovation projects into our business

At UK Power Networks we are always aware that the purpose of all the projects within our innovation portfolio is to test out more effective ways to operate our network whilst continuing to provide security of supply to all our customers and to keep reinforcement costs to a minimum. With this in mind one of the Future Networks Teams' key stakeholder groups are our colleagues within UK Power Networks who will be responsible for ensuring that the rich and important learning emerging from our innovation projects is translated from the 'test bed' to reality.

All our projects work closely with relevant parts of our business to ensure that colleagues are not just kept informed of the objectives of our projects but also have an opportunity to take an active role in helping to deliver those objectives. Regular briefing sessions are delivered by members of the Future Networks Team to groups of colleagues at lunchtimes and to senior and operational level team meetings. When advantageous, larger workshops are organised to bring together colleagues from a variety of areas of the business. One example brought together a group which included engineers from Asset Management function, our control centre, Network Operations and financial and legal areas to hear more about Demand Side Management (DSM) and to debate the process necessary to enable UK Power Networks to adopt this innovative method for supporting the network and reducing costly reinforcement. This workshop was the catalyst for further internal discussions which have led to plans to seek opportunities to trial DSM more widely within our network areas during the next regulatory period

12 Whole of business engagement

12.1 Internal engagement

The RIIO framework is a significant regulatory development and internal engagement has been focused on increasing awareness of the importance of the three elements, Incentives, Innovation and Outputs as the business plan itself has been in development.

A number of approaches have been taken to raising awareness of the regulatory process including

- Direct briefing of management teams
- Engagement of staff representatives through the business' professional and staff forums
- Production of supporting briefing documents for managers to help them explain RIIO and its key principles
- Inclusion of the RIIO framework and principles in training
- Through business improvement programmes

12.2 Direct engagement

Since the finalisation of the last business plan in December 2009 briefing sessions have been held within UK Power Networks. There were three rounds of engagement:

2010/11 – What does the DPCR5 final settlement mean for you?

2011/12 – An introduction to RIIO

2012/13 – RIIO-ED1 a well justified business plan 2015 - 2023

The Briefings covered the key elements of the RIIO framework, the timetable for the development of the business plan and the key elements of the plan and the current progress in developing them.

Ofgem's approaches to benchmarking were highlighted to bring a focus onto efficient performance and accurate capture of costs and achievement.

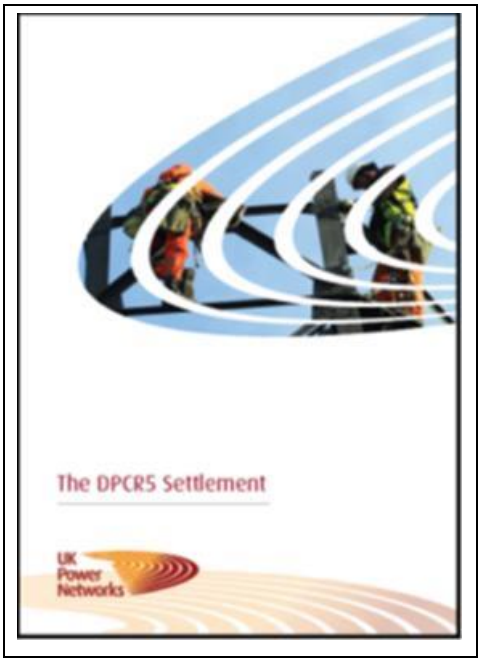
The discussions with each management team focused on their key issues and the key RIIO outputs that they would be responsible for.

The key staff representatives were engaged through the Professional and Staff Group Negotiating Forums, ensuring there was an understanding of the key elements of the RIIO framework, how our business plan was developing through 2012 and what the implications were for our business strategy.

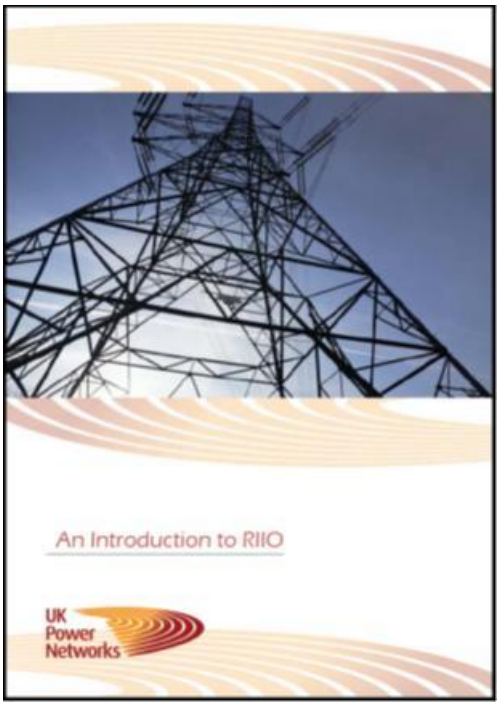
12.3 Supporting publications

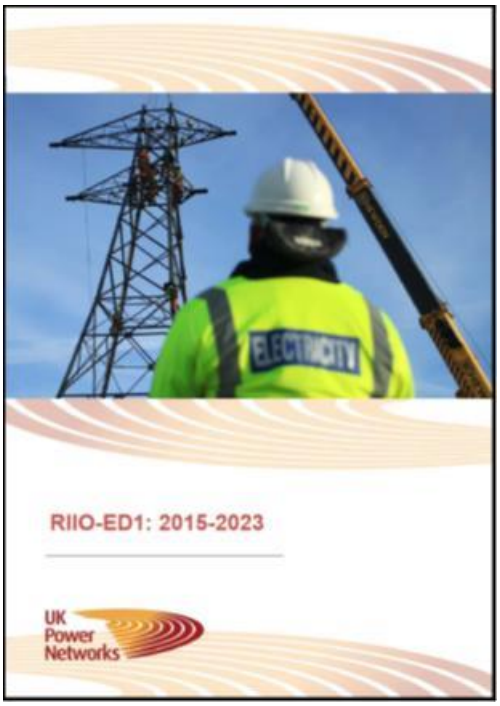
Three internal publications were produced, circulated to management to brief their staff and published on the company intranet.

The first in December 2010, called "The DPCR5 Settlement – a guide for managers" provided an explanation of the key elements of the regulatory settlement and the business plan for the period 2010 – 2015.



The second in September 2011, called “An introduction to RIIO” described the principles of the RIIO framework and the developments from the existing framework in DPCR5.





The third published in early 2013 described the RIIO-ED1 proposals as they were likely to emerge from Ofgem’s Strategy consultation in September 2012 and the industry working groups that had been running throughout 2012.

The third publication also gave more details on the output measures that will form the main measures in the RIIO-ED1 period, the elements of a well justified business plan, and the elements of the likely cost assessment framework and reinforced the importance of good information. It also provided a brief update on the engagement with other stakeholders that the business was undertaking.

12.4 Engaging on RIIO through Business Initiatives

Preparing for RIIO by ensuring we have the best data possible for the business plan and that our costs are well justified has been at the centre of three key business initiatives which have been important in engaging and aligning the company for RIIO-ED1.

The data quality initiative focused on highlighting the completeness and accuracy of data recording that feeds into the data that supports the business plan and is reported to the regulator.

The unit cost project has improved regulatory unit cost visibility to management and helped improve the alignment of the more granular reporting used within the operational units with regulatory data.

The Direct Cost Efficiency programme is looking at efficient costs and meeting our future target costs. When the project was established it was designed to improve operational management with the RIIO output philosophy.

12.5 Engaging through training

Through March and April 2013 UK Power Networks will be running half day training courses to increase the commercial awareness of the line managers across the business. The course contains a significant segment on outputs and efficiency through unit costs to ensure that our front line leaders understand the importance of delivering the RIIO contract.

13 Changes included in the business plan

Throughout this document we have highlighted many comments or questions raised by our stakeholders, during the various engagement processes, together with our response. Where those requests are feasible and reasonable we have committed to action them, either during the remainder of the DPCR5 period or as part of our plan for the RIIO-ED1 period.

This section summarises the main themes that have emerged from the formal consultations, and highlights many additions that have been made to the business plan as a result.

Equally we have received a number of suggestions that we are not able to take forward for one reason or another. UK Power Networks feels it is important to acknowledge these contributions, and lists the more significant of these. It should be noted that in a number of cases, these suggestions may well be returned to and perhaps taken forward, in the future.

13.1 What is important to stakeholders

Our engagement has identified a number of key issues that consistently come through as most important to our stakeholders:

Increased transparency

Stakeholders have requested greater transparency around reporting, decisions and business processes particularly in connections.

In response, we were the first of the UK DNOs to publish information on our annual revenue requirements and prices for the upcoming planning period. We will undertake further focused improvement to our external website including providing improved information on our connections process and network availability.

Improved customer service in particular in connections

Stakeholders would like to see improved customer service and support the development of a contestable customer connections market to foster greater choice in service provider and in improvements in service outcomes.

In response, we have already significantly improved our customer connection services by listening to and acting on feedback from customers. We are committed to introducing further improvements over the next planning period as part of our Business Transformation project, including the introduction of an end-to-end customer self-service connection portal. This will provide customers with greater transparency about the connection process including timeframes, alternative service providers, information requirements and costs.

Infrastructure development

Some of our stakeholders, in particular in London, have questioned whether our Business Plan provides sufficient capacity to accommodate future customer connection requests in certain areas of the network and how the cost of network investment, required to accommodate future connections, should be recovered from customers.

In response, we have revised our business plans to reflect stakeholder feedback, whilst being careful not to propose investment in new capacity ahead of need, which would result in existing customers subsidizing the cost of connecting new customers and is prohibited by our regulator. In particular LPN's Business Plan includes a £100 million London Infrastructure Plan focused on adding additional capacity to meet general load growth and improving resilience. This investment is supported by the existing planning standards. The investment costs will be recovered from customers in accordance with the existing statutory connection charges methodology. EPN's Business Plan includes £15 million to support the increased level of DG seeking connection to its distribution system. This investment is supported by WTP and cost benefit assessments.

Possible transition to a smart grid

There is stakeholder support for planning to meet the challenges arising from the transition to a low carbon economy, which will drive changes in the role and responsibilities of distribution networks.

In response, we have made clear our commitment to the UK's transition to a low carbon economy and to a possible journey towards a 'smart grid' by 2030 without creating stranded assets. We have reflected investment to support our transition to a smart grid in our business plans, and have also reflected £135 million of cost savings from smart interventions.

Vulnerable customers

Stakeholders would like to see even more investment in initiatives to assist vulnerable customers.

In response, we have established a project specifically focused on identifying how we can better assist vulnerable customers.

Efficiency of cost delivery

Stakeholders have asked for more comparative information on the relative efficiency of our networks in delivering their outputs compared to other DNOs.

In response, we are working with Ofgem to further develop its annual report on the electricity distribution networks, which is the best and independent source of comparative DNO information. Our vision, to achieve top third performance in our sector in key areas, is also founded on comparative benchmarking and this Business Plan is full of information comparing our performance with the sector.

13.2 Feedback on our draft business plan and business plan update

We have received a number of responses from stakeholders to the consultation exercises run following publication of our November 2012 draft business plan (23 written responses) and April 2013 draft business plan update (6 written responses).

Whilst there is considerable overlap with the issues that emerged from discussion at the Critical Friends Panels, the personal nature of each response usually brings a particular perspective on a topic. Specific actions taken to address stakeholder comments including:

- The introduction of a £4.5m per annum increase in operational resources.
- Confirmation that fault rates are not forecast to increase in RIIO-ED1
- UKPN has received a number of references to CHP from our stakeholders. The potential take-up of CHP was incorporated within our modelling of low carbon technologies and has been included within our forecasts for connections of Distributed Generation. This will be clarified in the final business plan.

Further detail on the comments received can be found at appendix A.2.

13.3 Other changes to our plan as a result of stakeholder engagement

As a result of stakeholder feedback we have also made a number of other changes to our Business Plan. We have:

- Introduced additional secondary deliverables to support primary outputs. UK Power Networks has also identified programs of work or activities to support these commitments
- Refined certain inputs into the planning scenario including forecast household growth and the domestic uptake rate of heat pumps and electric vehicles. UK Power Networks has however, retained the core planning scenario underpinning its Consultation Draft Business Plans

- Refined the scope of investment required to respond to the decarbonisation of the UK economy particularly through the connection of new low carbon technologies
- Refined the scope of the Distributed Generation (DG) Infrastructure required to allow the timely and efficient connection of the increase in medium to large scale generation
- Refined the scope of investment in the London Infrastructure Plan to ensure that the network serving London has capacity and resilience comparable to other world cities
- Introduced an enhanced central London operational response team
- Further developed our innovation strategy through expert panel review
- Included shareholder funded greater investment to improve the end-to-end customer connections process. Further improvements will be delivered as part of the Business transformation project over the next planning period
- Targeted improvements to the quality of electricity supply through greater investment in automation and remote control and changes to inspection and fault processes
- Further reviewed and revised our procurement, work delivery, training and contractor strategy
- Expanded the initiatives that we will undertake to support community engagement and the services that we will provide to vulnerable and fuel poor customers
- Amended the way that our distribution use of system prices (DUoS) will be set to reduce price volatility

13.4 Changes not accepted

While we have listened to and understood all the feedback we have received, inevitably there has been some which it has not been practical or feasible to incorporate into our Business Plan. The main suggestions which have not been reflected into our Business Plans include:

- The introduction of a seventh output category and associated targets and incentives relating to the decarbonisation of the UK economy
- Whilst we have undertaken to monitor short duration interruptions (less than 3 minutes) during RIIO-ED1, compensation has not been extended to those customers affected
- We have decided not to move to a Distribution System Operator during RIIO-ED1, but will continue to review our role as the decarbonisation of the economy speeds up
- Investment ahead of need in London and for the connection of Distributed Generation
- We have decided not to create a separate licenced network for the central London District. We now monitor customer interruptions and customer minutes lost performance separately and provide geographical specific network loading. However, it is not practical due to the interconnection of the London network to try to completely separate the central district from the rest of the London network
- We have decided not to become a Meter Operator in response to the smart metering roll-out and will focus on responding effectively to network interventions required by the supply companies and their agents
- It was suggested that we should measure and report on the additional congestion resulting from our streetworks. Whilst this is a worthwhile proposal, it is not clear to us how this can be achieved and hence it has not been included in our plan. We will, however keep this matter under review
- A more aggressive programme of removing oil-filled cables to minimise the potential for environmental damage through oil leakage. We will continue to monitor our oil-filled cables carefully and where a suitable investment case exists, we will replace them. However, these works tend to be very expensive and there is the scope for many customers to be affected, and hence for reasons of cost efficiency and customer service any replacement is best undertaken only when required
- It was suggested that we should change our DUoS charging to reflect the distance of the customer from the substation. Whilst understanding the rationale behind this point, we believe that this would be perceived as a 'postcode lottery' by customers and that a 'postage stamp' pricing model is more appropriate to a fundamental service such as provision of electricity

Note: whilst we have decided not to incorporate the above in our business plan, it is certain that some will merit reconsideration at a future date and hence these suggestions will be logged and reviewed periodically.

14 Future engagement

This document demonstrates our Business Plan has been tested with various stakeholders, through multiple channels over an eight-month period.

We held the following stakeholder events during 2013:

- Customer Focus Groups
- Solar Panels and Distributed Generation
- Fifth Critical Friends Panel sessions – Business Transformation

UK Power Networks will continue to engage with its key stakeholder through the Critical Friends Panels, specific issue engagement and a range of other stakeholder engagement activities. We have consulted with our stakeholders on our vast and ambitious Transformation Project that will change the way we do business at UK Power Networks. By consulting stakeholders at the formative stage of the project, which is due to run until April 2015 – and thus become a transition phase to RIIO-ED1 – we intend to make stakeholders part of the decision-making process.

It is planned that the Critical Friends Panel sessions will continue through into ED1, becoming an enduring process with a recognised panel. In time, the intention is that they will be led by an independent chair that would set the agenda, ensuring impartiality and allowing the stakeholders to address the issues that are of key importance to them. .

The Business Plan is due to be submitted to Ofgem on 17 March 2014. Needless to say, our stakeholder events will continue uninterrupted and we have already developed a calendar of events that we intend to hold until the end of 2014.

UKPN has made the commitments in its RIIO-ED1 outputs to:

- continue with three critical friends panels per DNO per annum;
- review whether it is possible for an independent chairperson to the critical friends panels be appointed;

- publish and review our annual planning assumptions through the critical friend panels;
- publish an annual report on the progress against the RIIO-ED1 business plan; and
- discuss the annual report annually at the RIIO-ED1 critical friend panels

Furthermore, our specific issue engagement will continue throughout RIIO-EDI period. Alongside large events that address broad issues (e.g. transition to low carbon economy or evolution to DSO), we plan to hold regular specialised sessions on niche subject in order to consult stakeholders on all the issues that interest them.

UK Power Networks has now completed the additional engagement identified in this chapter. We are now formulating our engagement strategy and priorities for 2014.

15 Appendices

A.1 Feedback and actions from critical friends panels

You Said	We Did	We Will Do
ENVIRONMENT & LOW CARBON		
UK Power Networks should benchmark its Business Carbon Footprint against companies outside of the electricity distribution sector	We currently benchmark against other DNOs; however, following this feedback, we have started the process of benchmarking against other utilities e.g. telecommunications, water and gas.	We have obtained executive sign off to join the Global Reporting Initiative (GRI) and will be using this to support broader benchmarking of UK POWER NETWORKS performance.
What are UK Power Networks doing to minimise losses?	We agree with stakeholders that additional measures are required to reduce line losses and are working with Ofgem on this issue.	Ofgem has introduced a reporting requirement for DNOs to annually report the actions taken to reduce losses for regulatory years 2013/14 and 2014/15. Under this reporting regime, all DNOs will be required to report both the physical actions (such as replacing an existing transformer with a low loss one) and the non-physical actions (e.g. instigating a programme to manage theft) aimed at lowering losses. We will be submitting our first report to Ofgem around June 2014 and will provide this report our Critical Friends Panel.
UK Power Networks to provide information concerning Smart Meters and the link into the DCC	The smart meters that will be installed in residential and small non-residential premises as part of the national smart meter roll-out will communicate with electricity suppliers and network operators, including UK Power Networks, through the Data Communication Company (DCC) licensed by DECC and regulated by Ofgem under the Smart Energy Code (SEC). The DCC will contract with Communications Service Providers (CSPs) and a Data Services Provider (DSP). The CSPs and DSP will be responsible for providing and managing the	UK Power Networks is currently developing its strategy on how it will obtain and maintain customer contact information and what permissions it might need from customers to hold this data securely. UK Power Networks will engage with

	telecommunications infrastructure and data management systems to handle the smart meter data and message flows. The DCC Gateway Service Interface will manage the messaging and data access flows between Suppliers and Network Operators and the DCC. In the case of power outages, whilst not (at the time of writing) fully developed, it is expected that the smart metering system will provide signals to the DCC notifying that power has been interrupted. Depending on the duration and how widespread the power outage is, that signals will flow through to the electricity distribution network operators (DNOs) like UK Power Networks. If we have the customer contact details we could proactively inform the customer, via an automated telephone call, text message or email, of the outage and any other relevant information, such as estimated time of restoration.	its customers and get their views on this very exciting change to the relationship between us. More information about smart meters and the planned roll-out can be found on the Government website: https://www.gov.uk/smart-meters-how-they-work
A stakeholder asked what plans are in place to reduce consumptions/usage for domestic customers i.e. can UK POWER NETWORKS not advertise energy efficient savings that can be made for householders by TV advertisements etc.	We are however working with National Energy Action to explore ways to educate our customers on energy efficiency. We anticipate agreeing a plan of action early April with a range of activities mapped out for the coming year.	We will not develop a large scale advertising campaign but we will continue to work with National Energy Action to assist educating our customers on demand side management initiatives.
Is there a role for DNOs in educating customers on timing of demand, or how these messages could be passed via the retail suppliers?	Following input from stakeholders, UK Power Networks have undertaken an innovation project (Low Carbon London) that is trialling time-of-use tariffs with residential consumers - in conjunction with EDF Energy who are supplying the smart meters for this purpose. The project is also trialling responsive demand contracts with large commercial consumers in conjunction with a number of energy Aggregators.	When the trial comes to an end, we will have an opportunity to review the project and look at the lessons learned. After this process has taken place, the role of UK Power Networks should be clearer. We will report back to stakeholders on our performance in this area.
RELIABILITY & AVAILABILITY		
Can you publish maps of load pinch points?	At present, the decision has been taken not to publish maps of load pinch points due to the high intensity manual nature of the task and demand for our resources in other priority areas. It would also need to be voltage specific, as some developers are interested in LV and others in HV or EHV.	We are in the process of developing a GIS system which will make it easier to match geography to load and capacity. This is part of a larger IT improvement plan which is a component of our company wide transformation programme. We will report back to stakeholders on the progress of this programme

		and expect that we will be able to publish load pinch points in the future.
UK Power Networks to work with the ENA to discuss the approach to both data sharing and outages. This should include consideration to make energy guaranteed standards (EGS) payments to Suppliers to pass on to customers through their bill in same way as Gas Networks operate	At present, under the guaranteed service levels, we write to customers to inform them that they are entitled to compensation. However, there are examples of DNOs in other jurisdictions that automatically compensate the customer through the billing system and following feedback from stakeholders, we have undertaken to review this suggestion.	We consider this suggestion has merit and warrants further discussion across the industry. It may also require change to regulation to facilitate implementation. UK Power Networks commits to take this forward with Ofgem and the other DNOs, either directly or via the ENA. However it is unlikely that it will be possible to make any changes ahead of the submission of the RIIO-ED1 business plans on July 1st.
UK Power Networks to provide feedback to stakeholders on what tougher targets they can establish, including looking into the impact of changing the triggers for EGS2a.	We have taken the first steps to delivering a higher standard than set out in the Electricity Guaranteed Standards (EGS). We took the decision last year to proactively pay £100 for 18 hour failures rather than the £54 stipulated under EGS2. Under the standards the customer is required to make an application. Following a fault exceeding 18 hours, we proactively write to all households affected to advise them that if they contact us we will make a good will payment to them.	We will reduce to the EGS to 12 hours from 2014, prior to the scheduled industry start date of 2015. We are also examining the triggers for EGS2a payments with the view to agreeing more challenging targets. We anticipate rolling out our revised targets by the end of Q2.
Why might UK Power Networks seek additional expenditure in ED1 when it is failing to spend its allowance in DPCR5?	We are monitoring our performance and delivery against our plans very closely, and will continue to do so for the remainder of DPCR5. We have put recovery plans in place to identify areas of underspend compared to our original plan and rectify and/or explain the situation where possible.	Our plans for ED1 are currently being drafted and these will take account of what asset replacement / asset reinforcement is required in order to continue to maintain a safe and reliable electrical infrastructure. We are also ensuring that what we propose to the Regulator in these plans is both realistic and deliverable. One particular reason for the additional expenditure requested in ED1 is the planned replacement of a large number of underground cables across all three licence areas. Underground cables are more costly than overhead lines on a km basis. Their replacement is necessary to maintain the safe and

		reliable network. Their replacement in a timely manner will minimise the impact of our business and benefit the local communities. The networks will also require a considerable investment as we begin the replacement of fluid filled cables, predominantly in the LPN licence area. The fluid within these cables acts as a very effective insulator and has proved cheaper than alternative options. While the risk of leakage from these cables is relatively low, the environmental impact when it does occur is significant. We have, therefore, taken a decision to start replacing them.
What services / assistance is available to third parties to avoid cable strikes?	We provide both plans and e-maps on request to other utilities and their contractors, local authorities and their contractors as well as Independent Connections Providers (ICP) and Independent Distribution Network Operators (IDNO). There is also the option to get plans from the Plan Provision Team.	We will monitor the situation closely and if the number of third part cable strikes increases we will develop new initiatives such as an education and advertising campaign and access to a detailed online map of our network.
CUSTOMER SERVICES		
Can you develop a customer database?	We have committed to developing such a database as part of the overall business transformation programme. As a minimum, a temporary solution for faults will be implemented by the end of 2013.	UK Power Networks expects to test, if not launch, the Customer Portal by the second quarter of 2014.
We would like to be better informed during and after power cuts.	The consensus from our stakeholders was that text updates should be offered throughout the day rather than stop at 22:00. In response to this feedback, we have modified our practice to introduce text updates 24 hours a day, 7 days a week. The service is expected to become available in late May. We now ensure messaging information is updated every hour. We will also inform anyone who has contacted us about their outage through Twitter.	UK Power Networks will implement a process whereby customers are notified when power is restored via an automated telephone service and/or by an adviser. More broadly, UK Power Networks will seek to generate positive awareness about the initiatives on how customers can be kept informed during power cuts using customer research that is currently underway.

Is a single national DNO contact number feasible?	It has been agreed with other DNOs that the Energy Networks Association will coordinate a group of DNO telecoms experts to consider this.	UK Power Networks will update our stakeholders with the progress going forward.
Could UK Power Networks develop a Customer Portal?	This idea features heavily in the Customer Services journey, which we are developing within our IT infrastructure as part of the business transformation initiative.	With the timeframes being discussed, we would anticipate we would be testing (if not launching) a Customer Portal by Q1 of 2014. We will hold a Critical Friends Panel later in the year to discuss the requirements that will feed into Transformation.
Provide a directory of key UK Power Networks staff to be shared with Stakeholders and customers.	In an effort to make contacting UK Power Networks a simple process, we have made a number of improvements to our website during 2012, including contact numbers for the different business areas. In addition, where customers receive letters from specific staff in connection to an on-going job, we now include staff contact numbers. For planned power cuts, we have introduced colour-coded cards that provide the time, range and reason for the shutdown. They also provide customers with the name and telephone number of the person responsible and the 24-hour emergency line contact number.	We consider a contact list of staff with responsibility for key issues has some merit. We have commenced developing this list and will publish the information on our web site.
Can you implement a process for calls that come from outside the footprint of UK Power Networks?	We have ensured that our telephony systems currently redirect phone numbers from landlines outside of our licence area to the relevant DNO.	UK Power Networks will install a new telephony platform, which will provide us with the ability to recognise and answer numbers from landlines outside our licence area.
UK Power Networks should look at offering an account manager service for larger customers	We are currently assessing whether the account management process used in the connections team could be extended to large customers and those with frequent interactions with us. A number of our larger customers consider this could improve service delivery and customers' satisfaction.	UK Power Networks will consider the benefits and costs of this approach and we will report back to the Critical Friends Panel on the outcome of our assessment.
To what extent is UK Power Networks undertaking customer education on what to do during a fault / interruption?	As well as providing information services, UK Power Networks has started to offer a range of educational material, including videos, factsheets and practical advice, designed to help our customers prepare for and cope with the inconvenience of a power cut. Some examples include who to contact in the event of a power cut, how to look after tropical fish, etc.	We have partnered with National Energy Action to promote knowledge through different channels. Through regular monitoring of our services and feedback

	We use a range of channels to distribute this information, including through Customer Champions.	from our customers, we will continue to explore options for improved customer education.
UK POWER NETWORKS to assess the information provided to customers during a power cut and whether this communication could be improved.	We have recently implemented a number of measures to improve the quality of the information provided to our advisors to improve customer information. For example, we have removed jargon from our job notes and standardised the format of information to include estimated times of arrival (of our engineers to site) and the estimated time of restoration (or average estimated time of restoration if the fault has not been identified yet). This step has improved the accuracy of information we provide to our customers. Based on current performance, 98% of the jobs raised had an estimated time of restoration that our staff could provide to customers. In comparison, in 2011 3% of the jobs raised had an estimated time of restoration that our staff could provide to customers. Daily meetings between the dispatch centre management and service delivery managers will continue to focus on the quality of information we provide to our customers and the speed at which this information is shared.	We will share this information with customers in a more pro-active way through social media, our text messaging service and expanding our capacity to pro-actively call and update our customers who are off supply. We will continue to monitor the quality of information provided to customers, assess our customer service performance and report back to the Critical Friends Panel on a regular basis.
UK Power Networks to feed information back to stakeholders on the proportion of business to domestic customers that call the Call Centre.	With the limitations of our telephony platform, we are currently unable to differentiate between the numbers that call into the Service Delivery Centre. We are therefore unable to report on the split between domestic and business customers who call.	As part of our transformation programme we are developing new systems that will provide us with the platform to identify the proportion of business and domestic customer calls.
Provide feedback to stakeholders on the process for when a question from a customer can't be answered on the call.	At present when an SDC advisor is unable to give an immediate response to a customer, they will agree a convenient time to call back, with answers. If this falls outside the advisor's remaining shift then the call is booked in with our call back team to complete – Shifts run from 7am to 11pm. The Advisor would investigate the issue and either call the customer back as agreed or pass the information across to the call back team to complete. Our objective is to substantially reduce the number of instances of call-backs. We have established a large scale training programme to up skill the customer service team. The aim is that all advisors would be competent in handling any call that comes into the Service Delivery Centre. This will be supported by information via the web site.	We will provide further information to the Critical Friends Panel on our performance in reducing the number of instances of call-backs.
UK Power Networks to provide more information concerning the recruitment and training process for	We have recently completed a training schedule that will see all of our 160 advisors multi skilled by the end of April, this includes skilling all agents to take customer complaints calls. We are also in the process of re-designing all of our training material to have an equal focus on process adherence as well as the service we provide our customers on calls. We have also	We will continue to train and multi-skill our staff.

call centre staff	introduced a new call handling guidelines, which will be used to quality check all calls to ensure we provide a high level and consistent service to our customers	
UK Power Networks to provide information concerning its field staff training programme	We have commenced a programme for field staff called through the customers' eyes. This is already successfully being rolled out in customer services and connections. The purpose of this programme is to define what great customer service looks like. It involved using exercises that encourage the employee to see the world from the customers perspective and time is spent discussing how to build rapport with customers through the use if NLP (neuro-linguistic programming) techniques.	Training our staff in customer focussed techniques is an on-going commitment for UK POWER NETWORKS and we will continue to report our progress to the Critical Friends Panels
UK Power Networks to provide feedback on whether there is currently a different approach to handling calls for business and domestic customers	We adopt an approach of treating every customer on their individual merits, using open questions to gain an understanding of their needs and delivering an outstanding service experience.	There are no plans to alter our current approach
UK Power Networks to investigate multi-lingual planned outage cards	We have taken action to implement this suggestion. At present, the challenge will be to understand what are the most commonly spoken languages at a local level.	The next step would be to contact local authorities to map the most common languages spoken within their area. Once we have gathered sufficient evidence to show why it's a worthwhile project, we could apply the principle to all CS literature (including leaflets, PSR packs, shutdown cards).
UK Power Networks to look into the billing arrangements with the six major suppliers to understand whether there is enough information given on the bill to highlight the role of the DNO	During 2010/11 we worked with a number of suppliers to update the information they displayed on their customer bills. To move this forward we need to review what is information is currently available through suppliers, and understand what level of information would be needed to meet stakeholder expectations. In addition, there are currently discussions underway to adopt a single national number to report loss of power supply.	Once a decision has been made on the single national number, we will revisit the question of brand awareness.
UK Power Networks to consider producing separate Charters for business and domestic customers.	Having considered this proposal we have come to the decision that we will only publish one Customer Charter. It will be our challenge to ensure the content supports the delivery of service excellence to all our customers.	
UK Power Networks to look at its Communications to customers (particularly around	There will always be an element of dependency on self-registration for our Priority Service Register. We actively promote the service on our website (http://www.ukpowernetworks.co.uk/internet/en/power-cuts/) through the British Red Cross and Customer Champions.	We are looking to share customer data with Local Authorities under the terms of the Civil Contingencies Act. In addition, we have

our Priority Service Register) and improve if necessary		identified a number of charities who we will contact during quarter 3 and seek their support in promoting our priority service register.
UK Power Networks have promised to share a summary of the findings of the Willingness to Pay survey, as well as the full document for those who would like it	The full willingness to pay reports will be published via the UK POWER NETWORKS website imminently. A summary is being developed for inclusion in our RIIO-ED1 business plan and this will be shared with stakeholders as part of the Panel 4 presentation.	No further action is planned
VULNERABLE CUSTOMERS		
How do you maintain a register of Vulnerable Customers?	Customers are billed by their supplier so we do not currently have an up-to-date database; however work is now underway to update this. We have also been producing self-addressed envelopes so our customers can inform us, free of charge, if they require any special consideration. These are with our printers and will be distributed shortly.	Our objective is to keep the register relevant and to develop systems that add and remove customers from the register on a more timely basis. Our plan is to develop a more robust tracking system by contacting each customer on our Vulnerable Customer register on an annual basis so that we can update our records. We will also continue to work with community organisations and through advertising to identify as many new vulnerable customers as possible.
How do you handle data around Vulnerable Customers? Can this be shared with other parties?	We reviewed the terms of the Civil Contingencies Act 2004 and have since set up a project to share customer data with local authorities. A project has been set up to contact all local authorities with a view to collecting data on known vulnerable customers on our PSR to ensure they receive the support they need during power cuts.	Following on from this initial research we have now set up a project to build relationships with our Local Authority partners with a view to sharing this data. We will continue to pursue our current approach and monitor the success of our partnership with Local Authorities.
Occasionally more than one organisation will	Following feedback on the lack of coordinated response between Local Authorities and British Red Cross during outages, we now notify Local Authorities when there is a	We have developed a panel of Local Authorities with whom we will agree a

attend a Vulnerable Customer during an outage	British Red Cross or Customer Champion activation.	communication strategy. This will decide on a wider set of triggers for notifying the Local Authorities of an outage on our network. For example, should there be a prolonged fault involving a larger number of customers.
What can UK POWER NETWORKS do in the poorer parts of the community?	We have signed up as business sponsors to the NEA and are considering a range of initiatives that will support vulnerable and fuel poor customers	We will work alongside the NEA to undertake local profiling and analysis of our customer base. This will give us greater visibility of vulnerable customers on our network and allow us to map organisations that can provide on the ground assistance and support.
Document how vulnerable customers are identified and what the process is for their registration. Outline what the difficulties are in maintaining this list and keeping it up-to-date. Provide advice on how the list will be managed in the future.	We currently identify vulnerable customers by mainly through information provided by suppliers and self-registration from customers. We advertise the Priority Service Register via our website in addition to using proactive engagement with key organisations like Local Authorities, Medical Centres, and providers of essential medical equipment. These completed applications are received by our Customer Services team. Our objective is to keep this data relevant and to develop systems that add and remove customers from the register on a more timely basis.	We will develop a more robust tracking system. Our plan is to contact each customer on our Vulnerable Customer register on an annual basis so that we can update our records. We will continue to work with community organisations and through advertising to identify as many new vulnerable customers as possible.
Many stakeholders have concerns over vulnerable customers and would encourage us to do more	Our social media and messaging team are also exploring ways be more pro-active during difficult situations. We now have a list of councils, police stations & other support groups set by area and postcode. In 2013 we will begin to contact these external groups during faults to make them aware of the situation so that they too can get the message out locally and provide support where needed. Our partnership with the British Red Cross is strong and they have provided a fantastic support to our customers but it does rely on their vehicles being in the right place and their volunteers being available where we need them. For emergency situations at short notice it can take some time to mobilise these services. The memorandum is due to be reviewed in Q1 2013 and we should aim to agree service levels so we can be clear with our customers about the support we can offer during fault issues. To improve the services we offer we should consider if it is	We will continue to monitor our approach to vulnerable customers to ensure we are serving priority customers in the best way.

	appropriate to rely just on customer champions and the BRC – for larger incidents we could respond in addition with our own staff in branded vehicles and offer the support (hot meals and drinks), re-assurance and up to date information directly to the customer. We do support our vulnerable customers in other ways and some recent changes to empowerment limits for advisors and team leaders coupled with a more flexible method of payment for services is allowing us to respond much more effectively to book hotels or arrange for hot food to be delivered etc. In more simple terms our call back team are committed to maintaining contact with our most vulnerable customers during all types of faults. The pro-active contact and offer of additional services such as heaters or food does improve a difficult situation and we should continue and find new ways to support in during these incidents. (i.e. a meals on wheels contract to provide hot meals etc.)	
UK Power Networks to examine whether they should run a campaign to collaborate with Local Authorities to update their Vulnerable Customer database. Will need to take legal advice to obtain clarity regarding how the Data Protection Act applies and what alternatives they have.	We have reviewed the detail of the Civil Contingencies Act with our Legal Team to fully understand our authority and rights within the act. We believe we are able to share customer information with category 1 & 2 responders in order to protect the welfare of our vulnerable customers. We will need to ensure that we only use the data for the purpose for which it was collected, and comply with the Data Protection Act around data storage. Following on from this initial research we have now set up a project to build relationships with our Local Authority partners with a view to sharing this data.	We will continue to pursue our current approach and monitor the success of our partnership with Local Authorities.

A.2 Feedback and actions from November 2012 business plan consultation

You Said	We will
PROVISION IN CENTRAL LONDON	
Aware of aging network in the City of London and concerned this will result in increasing fault levels	Continue to invest in replacing assets as condition demands. In addition, we have proposed targeted reinforcement through the Central London infrastructure plan
Would like to see continuing improvements in CIs and CMLs during ED1	Continue to invest in Quality of Service, as is demonstrated in our proposed QoS targets
Would like improved information on health and load of central London network	UK Power Networks has extended the separate monitoring of Customer interruptions and Customer minute lost for the central business district. It is not currently practical to extend the separate monitoring of health and load performance for this area due to the interconnected nature of the London network.
There is a need for sufficient headroom in network capacity to enable 'plug and play' connections, rather than long lead times and complex negotiations re reinforcement.	The Central London infrastructure plan will make a contribution to improving connections lead times.
The stakeholder is concerned that UK Power Networks' proposed funding mechanism for investment ahead of need has not been viewed favourably by Ofgem.	UK Power Networks has sought to include appropriate investment in London where a clear business case exists. However Ofgem has been explicit that where investment cannot be justified or it is overwhelmingly geared to the delivery of a specific connection, then the existing arrangements for Connections should continue.
The time to connect has been the primary concern of the developer community in the City. Developers would pay more to secure connections in a guaranteed timeframe. We support UK Power Networks' proposals for an alternative "agreed time to connect" incentive based around the developers program for delivery of the building for large scale connections	UK Power Networks has committed to the investment of substantial funds, at shareholders expense, to improve the experience for Connections customers. We welcome the support for the 'Time to Connect' incentive and believe the Incentive for Connections Engagement (ICE) aimed at larger Connections customers, such as developers, will go a long way to meeting their concerns.
GSOP's are not applicable to large energy users in Central London and an alternative way of measuring customer satisfaction is needed for this user group. Separate Central London customer satisfaction metrics are therefore needed in order to ascertain performance against outputs for the RIIO ED-1 period.	Incentive for Connections Engagement is designed to address this specific issue.

We would certainly support UK Power Networks' plan for new strategic capacity in Central London; by being proactive, potential bottlenecks to future development can be avoided and improved resilience will increase stakeholders' confidence in London as a business location.	Support is noted
Supports the approach set out in particular with regards to - strategic investment ahead of need and investment in six new substations in central London and - decentralized energy and demand site response measures, and is keen to support their implementationHowever they sees fundamental problems with its delivery of strategic investments, in particular in terms of appropriate funding mechanisms to meet London's needs under the current regulatory system.	Support is noted. UK Power Networks has sought to include appropriate investment in London where a clear business case exists, however Ofgem has been explicit that where investment cannot be justified or it is overwhelmingly geared to the delivery of a specific connection, then the existing arrangements for Connections should continue
GLA strongly supports UK Power Networks' proposals for operational changes to enable faster response to faults in central London. They would like to talk to UK Power Networks about focusing its priorities on the types of customer who would most benefit from more finely granulated measurement of power cuts.	Support is noted
The priorities, in relation to the conditions for electricity connections, are timescales and the predictability and proportionality of cost. The current arrangements are clearly not fit for purpose	See comment re UK Power Networks willingness to invest in improving the experience of Connections customers. When combined with the proposed incentives on Connections (Time to Connect and ICE), this should provide a marked improvement for customers.
UK Power Networks should be providing more electrical infrastructure before the capacity is required	The Central London Infrastructure Plan is designed to provide appropriate reinforcement.
UK Power Networks needs to find new connection solutions for renewable and distributed generation. In particular, decentralised energy has a major role to play in London, to provide low and zero carbon heat and power to London. The Mayor has a target of securing that 25% of London's energy needs are met through decentralised energy by 2025.	UK Power Networks is trialling a new technical and commercial solution for the connection of Distributed Generation. Although this will not be applicable in all circumstances UK Power Networks will extend the solution during RIIO-ED1 whenever practical. UK Power Networks has also included an additional £15m to develop its network to support the distribution of electricity to DG customers.
There is a balance between the cost of connections being paid for by all customers as opposed to the party asking for the connection. Ofgem's connection costing regime already recognises that. However, the balance is currently not correct and needs to be re-structured.	Ofgem has indicated that it believes its current Connections charge allocation is still relevant and does not intend to change this.

GLA would welcome more transparency and further detail about the factors and assumptions influencing UK Power Networks' electricity demand forecasting.	UK Power Networks has engaged extensively with the GLA with regards to its load forecasting process and the detailed load predictions for London. This has also been included in an ANNEX to the overall RIIO-ED1 business plan.
I support the proposed areas identified in your plan requiring investment to provide much needed capacity within the area.	Support for Central London Infrastructure Plan is noted
The increase in demand is almost a given for London. Hence any investment in primary infrastructure should be a relatively safe investment.	Comment is noted, however we do need to consider the appropriate split between investment funded by all customers and that which is charged to a connecting customer.
London is always treated as special; there is clearly a lack of capacity in the CIty and this without doubt stifles or frustrates business. Projects in London take a considerable time to deliver. UK Power Networks could proactively manage the demands and invest in line with the "L" indices to shorten timescales. UK Power Networks should certainly be proactively investing in creating more fault level headroom to support more distributed generation.	The Central London Investment plan is an attempt to find the right balance between investment paid for by all London customers and investment funded by discrete Connections customers.
Reinforcement of the infrastructure is a primary importance for key development areas within the City.	Recognised through the Central London Infrastructure plan
– **The Council is gravely concerned that greater investment to build new infrastructure has been cancelled in favour of providing a saving to London domestic and business customers.**	– UKPN has sought to obtain the right balance between investment in both the physical network and its operations, and the need to respond to concerns over energy bills. We believe that the proposed £100m of capital projects combined with £4.5m/year of additional resource dedicated to improving reliability is a measure of UKPN's strong commitment to London.
– **CHP is mentioned as a point of "Key Stakeholder Feedback" (p.15). It is not though followed through with any action.**	– UKPN has received a number of references to CHP from our stakeholders. The potential take-up of CHP was incorporated within our modelling of low carbon technologies and has been included within our forecasts for connections of Distributed Generation.
– **The Council is noticing an increase in the number of electric vehicles within central London, and would welcome sight of UKPN's assumptions made in this area showing a drop in numbers.**	– UKPN commissioned a range of research from specialist third parties to assist in its forecasting low carbon technologies. This was further tested with stakeholders.

	UKPN would of course be willing to share the detail of this and would welcome further source materials.
– **The Council expect UKPN to investigate the impact of the international property market has on power distribution. Theses luxury buildings are designed to be of high energy demand and with the growth of this sector may impact on future energy loads**	– UKPN would welcome the opportunity to discuss this point in more detail to establish whether it should be a material consideration in future planning.
– **It is the Council's view that UKPN's investment plan does not reflect the needs of the wider business community in Central London - given the lack of additional investment to support new development / employment growth up to 2023, and reduction in the level of investment between the draft (November 2012) and the current draft (April 2013).**	– UKPN is disappointed by this response and would wish to point out that the plan does include both £100m capital investment in the Central London network and a £4.5m/annum increase in operational resources. We have endeavoured to arrive at a plan that meets the needs of Central London whilst being conscious of the impact on paying customers.
– **The Council has concerns over the level of investment to deliver the London Infrastructure Plan. We would like to see the evidence that states that UKPN's investment solutions are in line with the requirements of their customers and key stakeholders in London's Central Activities Zone – which includes the West End.** **While we welcome the identified provision of a brand new sub-station in the West End, we would like to know why this is only 60mva and not 66mva or larger (see table 18). Surely a larger substation would deliver economies of installation and land use, and could offer the West End more long term security of supply.**	– UKPN confirms that the new substation for the West End will be constructed with expansion in mind. Whilst a 60MVA transformer will be fitted initially, all of the necessary accommodation and infrastructure will be built such that additional transformer capacity can be added quickly and easily when required.
RETAIL SUPPLIERS	
DNOs should provide a robust justification for their smart meter investments and should co-ordinate with suppliers and Meter Operators (MOPs)	A full description of our plans to take advantage of smart metering is provided. We have taken an active role in communicating with suppliers & MOPs through the industry forums designed to facilitate the introduction of smart metering.
The 10% assumption in site visits for smart metering installation appears high; we are currently collecting data from our trials to challenge DNO assumptions.	Agreed - our assumptions have been refined as discussion has continued amongst industry parties and in response to our own experience in LCNF projects
Suppliers would expect minimum 15 months notices for price changes	UK Power Networks proposes to fix its charge for the period Apr 2015-Mar 2016 in November 2013, subject to obtaining any necessary changes to industry codes. This provides15 months' notice.

EDF supports Ofgem's recommendations in its work on mitigating charging volatility to reduce the impacts of these mechanisms on charging and they believe that it would be further improved by adopting EDF's proposals on managing the predictability of charges	See UK Power Networks' proposals re fixing of charges post April 2015. We would be content to extend this arrangement to provide 15 months' notice on an on-going annual basis.
EDF seeks Ofgem's support in setting up targets to ensure a positive customer experience is achieved	We have defined a number of stretching targets for our Outputs re customer satisfaction, and in all cases, any necessary investment will come from shareholder funds rather than customers.
We feel that the 'smart grid', renewable generation and new demand sources will have less impact on UK Power Networks' networks during RIIO-ED1. We feel that a competitive market can efficiently deliver demand side management and would urge UK Power Networks not to investment heavily here.	Views on timing are noted. UK Power Networks has consulted extensively on the timing and likely uptake such technologies in developing its business plan. Ofgem is consulting currently on the appropriate market response to Demand Side management.
We feel that all stakeholders, including industry participants need to be represented when measuring service quality and that there needs to be visibility of the level of customer service provided to them.	We appreciate the role of suppliers as direct customers of UK Power Networks, and look forward to a closer relationship building on the discussions that have occurred around the business plan
We would like to see UK Power Networks introduces a range of long term fixed tariffs to help suppliers and customers manage distribution use of system charging volatility.	Comments are noted. Our proposals to fix charges 15 months ahead are a response to this concern.
As for the any other issues which consider to be important HP considers future charging levels particularly important to them , as an independent supplier	Comments are noted. Our proposals to fix charges 15 months ahead are a response to this concern.
We note that the majority of tier 1 projects have involved improving environmental performance, as would be expected, we feel that areas of innovation could be in engineering improvements, for elements particular to UK Power Networks regions such as tunnelling, undergrounding substations, cooling systems and utilising quiet times in the City (i.e. weekends) for maintenance and experimental work.	UK Power Networks agrees that innovation should not be limited to the application of new technologies. Alternative ways of working can bring substantial benefits to customers, including lower costs, higher service standards or through less disruption.
INNOVATION	
We supports the approach to Innovation set out in UK Power Networks' document and would be interested in engaging with UK Power Networks to understand if there is anything in this area that	Support is noted

industry can assist with.	
We welcome the approach set out in the Business Plan in relation to innovation and change, which promotes a low carbon future and attempts to minimise the need for extensive reinforcement of the network (i.e. new pylons).	Support is noted
The approach to innovation and change is sufficient. We would like to see more future residential / commercial developments using renewable technologies as standard as part of the planning conditions.	Comments noted
Innovation is crucial to the success of all organisations and innovation can come from many sources. The innovations needed today are not necessarily the innovations which are needed tomorrow. **The long-term strategic approach appears to be one of flexibility, with the DNOs being able to control the outputs for when demand is high or low. The move from operating as a DNO to a DSO will certainly give UK Power Networks flexibility to manage the required usage as opposed to providing electricity all the time for everyone, reducing the environmental impact (carbon) and the cost to existing and future customers.**	Opinions are noted. Whilst the move to a DSO function is not an immediate priority it is important that UK Power Networks starts to consider how it needs to respond
The power industry is a necessity for UK plc, and as such innovation needs to be shared across all parties. Each DNO and the Transmission Networks should promote and work together	Agreed. UK Power Networks is a strong proponent of innovation in our industry and routinely works with partners to deliver research, including other DNOs.
UK Power Networks do not state how they intend to work smarter to reduce their unit costs in the first instance. The absolute level of spend should be tempered with a value statement, what will get done, and how it will be measured.	Agreed. The business plan will provide a full justification of all area of expenditure
ENVIRONMENTAL PROTECTION	
Surprised with UK Power Networks' position that the value of the heritage was only mentioned with regard to the London Network and there is no consideration or recognition of the historic environment under Section 4.10 which largely deals with matters relating to a low carbon economy. they would therefore expect the Business Plan to recognise the significance of the historic environment across all three electricity networks	UK Power Networks is conscious of its obligations to protect the heritage of the local environment, and the environment more generally, across its full geographical footprint and has amended the business plan accordingly.
The County Council would welcome proposals for extending UK Power Networks' program of undergrounding existing over-headlines beyond existing AONBs to other sensitive areas.	Support is noted

In relation to the increased demand for off-shore energy production in the East and South East of England, we want to see a commitment from UK Power Networks that the infrastructure associated with bringing this energy production onshore does not have a detrimental impact on Areas of Outstanding Natural Beauty and National Parks within the two regions.	UK Power Networks takes the environmental impact of its operations very seriously and hence we recognise the concern being expressed. It should however be noted that much of such off-shore generation may connect to the Transmission network rather than UK Power Networks' network.
The undergrounding scheme should have its budget extended, so that more projects can be delivered. All new works or repairs within AONB's and National Parks should be undergrounded such that in time everything will be below ground	Support for the scheme is noted and echoed by UK Power Networks. Typically we would look to underground any new line in an environmentally sensitive area, except where the cost is prohibitive and there is no viable alternative
More encouragement is needed from all customers to use energy saving products, and practices to reduce the amount of loading that is placed on the existing network.	Agreed. UK Power Networks is considering what role it might have in this process.
Reducing the impact of energy usage on the environment is not just the responsibility of the distribution network operator; the customer needs to learn by being educated into how much energy is "actually" being used.	Agreed - there is a discussion to be had about what role DNOs should play in this education process
No need to underground more except when the "national park" deems it necessary. Undergrounding can damage the environment more. Lower technical loss equipment is a certainty. Yes, to oil filled equipment, analyse through design the alternatives and risk assess or design in protection.	UK Power Networks is conscious to the environmental impact of its operations but equally will always seek to arrive at a sensible balance of cost vs. benefit when designing new schemes.
The Council would welcome a policy and position statement on redundant heat, particularly from sub-stations, and a commitment to facilitate its use.	UK Power Networks has made use of waste heat from substations although we would concede it is not yet a mainstream part of our operations. We have a major trial scheme centred on the Bankside substation at Tate Modern, and would envisage that the lessons of this will enable us to make much greater use of such heat in the future.
The Council would welcome that the details of energy demand and usage, from the smart meters, be designed to give power usage at a neighbourhood level. This information would enable local authorities to deliver energy efficiency interventions in those areas of greatest need.	UK Power Networks is committed to working more closely with local authorities in the future. We welcome the council's suggestion as a means of obtaining additional benefit from the use of smart meter data, and would be willing to discuss this further.
NETWORK PLANNING AND INVESTMENT	

UK Power Networks (UK Power Networks) should work closely with Local Planning Authorities and the respective Local Enterprise Partnerships (LEPs) to identify at an early stage where new growth will be located to enable electrical infrastructure to be provided in a timely and efficient way. UK Power Networks will need to actively engage in the Local Plan process and where necessary highlight any grid connection/distribution issues (i.e. where there may be constraints in electrical supply	UK Power Networks is committed to working with local authorities as part of its planning processes, and will look to extend its engagement to include economic development bodies, such as the LEPs.
UK Power Networks needs to recognise that there will be a requirement to improve the network particularly where there are new renewable energy generators (e.g. both offshore and onshore projects).	UK Power Networks recognises this requirements, and has included investment in EPN in support of renewable generation
It is felt that the cost of investment to make connections into the electricity supply network should be spread across all customers in the region. There are concerns that connection costs could seriously damage economic growth and development and ultimately deter businesses from either expanding or locating to certain areas.	Ofgem has strict rules re those connections costs which can spread across all customers and those that need to be borne by a connecting customer. Despite engaging Ofgem in a debate about the boundary between these, Ofgem is not persuaded to change that boundary.
Priority will need to be given to facilitating renewable energy generation both nationally strategic projects and micro-generation schemes. In addition facilitating new demand sources such as electric vehicles and heat pumps is welcomed. UK Power Networks should work closely with Local Authorities and the LEPs to promote renewable energy projects.	The business plan has been prepared after taking careful note of the likely uptake of renewable/micro generation and new sources of demand.
The potential for new electricity infrastructure is supported where it will facilitate housing and economic growth. However, there would be potential concerns where reinforcement of the networks led to more over-head power lines, particularly in sensitive areas. As such any new infrastructure needs to be carefully planned and where possible any new electricity cables ought to be placed underground. This will require working closely with the respective local planning authorities in order to minimise any impact associated with new infrastructure.	UK Power Networks understands the lack of desirability of building overhead lines however it should be recognised that undergrounding of lines is substantially more expensive than constructing an overhead line. This could be a material commercial consideration for a new Connection.
We expect UK Power Networks to be continually reviewing the smart meter data, checking power quality and updating their LCT forecasts to assess where reinforcement will be required and only build new infrastructure where necessary.	Agreed - please see our response to the smart metering roll-out
The lead time on building renewable and distributed generation should give you plenty of opportunity to only build / reinforce where necessary, after all other options have been reviewed.	Agreed
Investment should be paid by Connections customers	UK Power Networks will continue to plan its investment in line with Ofgem's stated policy

	on funding.
We expect UK Power Networks to regularly review their forecasts of load growth, low carbon technology connections and economic conditions and modify their expenditure accordingly. We also expect that smart metering data will inform UK Power Networks on whether their expenditure plans are robust early on in the smart meter rollout and hope stakeholders are informed periodically throughout the price control period.	Agreed
UK Power Networks should invest more money on the older infrastructure that has effectively reached an age where faults are likely to become more frequent if this results in less outages	UK Power Networks has sophisticated asset monitoring and management processes which are designed to ensure that our assets are maintained and replaced as appropriate before there is any significant deterioration in their performance.
More investment should be made to the existing electrical infrastructure to ensure that the network has the capacity to withstand new developments and economic growth, and renewable energy sources.	See previous comments re achieving a balance between investments being funded by all customers and those which will benefit a connecting customer. UK Power Networks has limited discretion in this respect.
They do not consider that we should proactively provide more electrical infrastructure, before the capacity is required, so that electricity connections can be made more quickly or easily.	Opinion is noted - UK Power Networks is constrained by regulatory rules on how new infrastructure is funded.
They do not consider that we should invest more in the electricity network to make it quicker or easier for renewable or distributed generators to connect.	Opinion is noted - UK Power Networks is constrained by regulatory rules on how new infrastructure is charged for.
UK Power Networks should invest in its own network and not use their customers own funds to provide them a service which you then charge significant sums for.	UK Power Networks invests significant sums in its own networks and will only ask customers to pay where regulatory rules require that a specific customer funds the investment
They don't think we should invest more in the electricity network to make it quicker or easier for renewable or distributed generators to connect. They should show the real cost of the investment by providing their own infrastructure	See previous comments re achieving a balance between investments being funded by all customers and those which will benefit a connecting customer. UK Power Networks has limited discretion in this respect.
UK Power Networks should invest in their own infrastructure just as any normal company does.	UK Power Networks invests significant sums in its own networks and will only ask customers to pay where regulatory rules require that customer to fund investment

The UK Power Networks business plan identifies a number of long term strategic decisions which need to be made (inc. electric vehicles, heat pumps etc.), the decisions will ultimately have an impact on the level of network infrastructure investment. With a significant increase of approximately 10% in demand between 2015 and 2023 increasing the capacity of the infrastructure in a reactive way (when the customer makes a connection request) cannot be seen as acceptable. **It is UK Power Networks' responsibility, as a utility provider, to provide an efficient and effective service to the customer, whether it's delivering electricity to the customers or managing the asset.** **Proactively preparing for additional capacity allows for flexibility in the infrastructure. If the electrical network in unable to support additional connections it will be working at maximum capacity thus not allowing for flexibility.**	See previous comments re achieving a balance between investments being funded by all customers and those which will benefit a connecting customer. UK Power Networks has limited discretion in this respect.
Investment needed to increase the network for additional capacity should be provided by UK Power Networks. Business planning should include for that significant investment as a part of managing the asset.If additional significant investment (not included within the Business Plan) is needed, which UK Power Networks will benefit, i.e. increased asset value, UK Power Networks should make that investment however, if a single or multiple new connections are requested and that investment is isolated to that connection then that should be paid for by those wishing to make the connection.	Agreed - this broadly reflects the current situation
They think we should proactively provide more electrical infrastructure, before the capacity is required, so that electricity connections can be made more quickly or easily. This can enable surety of cost and program to developers, and assist them in their ability to commit to schemes.	Please note previous comments re obtaining a balance between investment paid for by all customers and that being paid for by connecting customers. UK Power Networks has limited discretion in this respect.
We should invest more in the electricity network to make it quicker or easier for renewable or distributed generators to connect and also consider and encourage the provision and connection of private generation.	Please note previous comments re obtaining a balance between investment paid for by all customers and that being paid for by connecting customers. UK Power Networks has limited discretion in this respect.
This investment should not be subsidised by customers but paid for by UK Power Networks. I would expect that the volume of new supply and the revenues created should be able to sustain and allow investment upfront. The investment will also allow UK Power Networks to replace and upgrade older equipment and plant, which will benefit all including UK Power Networks in their overall efficiency.	UK Power Networks does bear a substantial proportion of the cost of new investment and obtains a financial return on such assets. However where the assets are largely to the benefit of a connecting customer, UK Power Networks is obliged to charge that customer. UK Power Networks has limited discretion in this respect.

– **The Council is concerned that large businesses and developers in Central London were not contacted as part of this the research. While we understand that the businesses being targeted needed to be random, it appears that the exclusion of large international developers has distorted the results of the Willingness to Pay survey.**	– UK Power Networks commissioned a highly experienced customer market research organisation to conduct its Willingness to Pay research, and firmly believes that the work was conducted in line with good research practise.
– **The Council welcomes the development of a GIS database which will highlight load and capacity requirements (table 8, page 22). This data should be shared with local authorities to support UKPN on managing the power supply process and developing a wider strategic view of power needs**	– UK Power Networks believes that a closer working relationship with local authorities will enhance both parties planning processes. We are very pleased to share information with the Council and believe that our new GIS system will enhance this process.
NETWORK RELIABILITY	
The reliability performance for UK Power Networks' regions is satisfactory and only the worst served customers should require an improvement.	We note the stakeholder's comments and would agree that there is no willingness to pay for substantial further improvements in reliability. We will however seek opportunities to provide improvements which offer value for money, and specifically seek to improve the experience of customers with less good QoS
Essex CC agrees with us that we should hold our reliability performance approximately constant in future years	Opinion is noted. We do not envisage large investments to improve reliability but will instead target our expenditure to the benefit of our worst served customers
All power cuts should be measured so that trends can be monitored and dealt with before they cause major 'outages'.	UK Power Networks has a responsibility to monitor, record and report on all faults over 3mins in duration. The rollout of smart metering will further improve our ability to monitor fault performance and use this information for our asset management processes
To date Ipswich Borough Council is happy with the reliability of the electricity supply	Support is noted
The same quality of service measured should extend to all customers. All power cuts should be measured including those of 3 minute or less.	Whilst we have undertaken to monitor short duration interruptions (less than 3 minutes) during RIIO-ED1, compensation has not been extended to those customers affected.
In an ideal world we/you should never have electricity outages; this is a target that all DNOs should aspire. Reducing the duration of power cuts is a "reactive" investment which has proved to be the least efficient way (cost and resource) of managing an asset. A proactive maintenance program would reduce the number of outages.	Agreed that prevention is very important in minimising the potential for faults and their impact

Recording accurate information can be invaluable to an organisation's success and determining a long-term strategy. Excluding short-term outages (<3 minutes) leaves a gap when attempting to understand the sustainability of the existing infrastructure and the effects it has on the customers' experience of UK Power Networks. If UK Power Networks are aware of an outage, for whatever duration, the customer MUST be made aware and the outage must be recorded for asset reliability records.	Whilst we have undertaken to monitor short duration interruptions (less than 3 minutes) during RIIO-ED1, compensation has not been extended to those customers affected
It would be a lot more meaningful if UK Power Networks shared more specific investments and unit costs so we can see actually what needs to be done. The HI and LI data for each site and the specific needs; communities and businesses alike could see that their needs are being met and UK Power Networks could be accountable to them for the delivery.	This level of granularity of detail has been included in the final business plan
CONNECTIONS	
Customer service is the most important when requesting new connection	UK Power Networks is committed to a major investment to improve the experience of Connections customers. This will be funded by our shareholders, rather than customers
We should invest more in the electricity network to make it quicker or easier for renewable or distributed generators to connect	UK Power Networks invests in its network where there is an investment case however UK Power Networks is required to charge connecting customers where the benefit is largely felt by them.
Quality of customer service is vital and an open approach in understanding the risks at an early stage of a scheme.	Comments are noted. We are committed to improving the availability of information to our Connections customers, as part of our shareholder-funded investment
Only new developments should pay for investments to make connection quicker and easier but in a way that either is spread over a period of time and is proportional to demand even if first to require a connection in the area.	UK Power Networks are restricted by the charging arrangements for Connections as part of the regulatory framework; however we look for opportunities to reduce the cost of connections to customers, or alternatively mechanisms which allow the cost to be shared.
The most important aspect of a new connection request is an agreed timescale for new connection	See previous comments re investment in the Connections process

Any future investment required to simplify connections should not be subsidised by all customers within the region but by those wanting new power supplies.	See previous comments re achieving a balance between investments being funded by all customers and those which will benefit a connecting customer. UK Power Networks has limited discretion in this respect.
Issues experienced by my company are related to costs and installation of new electric supplies and the safe condition of existing supplies	See previous comments re the rules that exist re charging for Connections
Timing is important as well as cutting down on red tape. Accurate details of installed services also a safety issue. Quicker pricing would be helpful.	The major investment in our Connections processes and systems will address these issues amongst many others
investment to make connections quicker and easier should be subsidized by the customer requiring the connection	Opinion is noted - although UK Power Networks believes that it is appropriate for us to invest, from shareholder funds, to deliver a good standard of service to our Connections customers
The whole service requires improving the delays in providing quotations and connections significantly affect our business.	Improvements to the end-to-end connection process are part of the transformation process will be funded by UK Power Networks shareholders.
They strongly believe that we should proactively provide more electrical infrastructure, before the capacity is required, so that electricity connections can be made more quickly or easily	See previous comments re achieving a balance between investments being funded by all customers and those which will benefit a connecting customer. UK Power Networks has limited discretion in this respect.
Delivery on time and to the original price is a priority	The major investment in our Connections processes and systems will address these issues amongst many others
When a customer requests a new connection they want to feel like they are the only customer UK Power Networks are dealing with. They [the customer] want to know that they are as important to UK Power Networks as UK Power Networks are to them in getting their connection energised. Dealing with a single person/department is vital to the success of this, the customer gets frustrated with a lack of ownership and with many hand-offs. Customers' do not want to be passed between person to person let alone between different organisations	Agreed - The major investment in our Connections processes and systems will address these issues amongst many others

The time to get a budget quotation is far too long. The detailed estimate is also too long for smaller projects, the larger more complicated projects timescales are not so crucial so long as the communication is in place, and UK Power Networks tells the customer what they are doing. It often appears that the internal communication within UK Power Networks is a major constraint. The quality of the estimates/quotations should also be measured not just the timescales on response. Ask the customer for a realistic response, tell them what stage UK Power Networks are at and keep them informed. UK Power Networks is also not very good at passing out contact details, is there a reason for this?	Please see previous comments re the major investment in our Connections service. This is designed to address all of the points made, whether it is timeliness, cost or provision of information
We should invest more in the electricity network to make it quicker or easier for renewable or distributed generators to connect. In particular to raise fault level capacity. The cost could then be shared among the generators when they apply to connect.	UK Power Networks is bound by the rules that exist for the charging of new connections, but is open to ideas that make connections more affordable
Domestic customers should not have to subsidise businesses when the business is receiving a benefit. UK Power Networks need to find a mechanism for this.	Agreed. This is behind the rules that require us to charge a connecting customer for the cost of a connection to the network, rather than seeking a contribution from domestic consumers.
SAFETY AND SECURITY	
I believe you should have some security standards relating to how you protect your assets and protect the public from the dangers.	We do have appropriate policies and standards designed to reduce the possibility of criminal damage to our assets
Prevention of metal theft and vandalism is key to many areas of UK Power Networks. Not just safety, but reliability and resilience. It would make sense to target this as it covers many areas within your future plans.	There is a provision in our business plan to protect our sites against metal theft
Safety around electricity should be made more readily available via TV advertising and should be taught at schools from an early age.	UK Power Networks has for many years undertaken an educational program and will continue to do so
We would like to see more overhead cables placed underground to reduce the likely hood of theft, overhead cable strikes, and overhead faults in adverse weather conditions.	Where cost effective, UK Power Networks seeks to put its overhead lines underground, although there is a substantial cost differential in doing so
One major concern we have is the increasing numbers of nuclear power stations being built. we understand that these are more efficient, emit lower green-house gases that the older power stations such as the oil and coal fuelled do, but we are concerned with risks to health in the event of a severe nuclear accident and the challenges future generations will have to overcome now that more radioactive waste in the future will need to be disposed of when	Comments noted although these are not part of UK Power Networks' operations

they need decommissioning.	
CUSTOMER SERVICE	
To improve customer service we should provide all employees with training on customer service, and measure customer satisfaction by closed questionnaires which will make it easier to quantify and record results for analysis.	Agreed. We are investing in a major customer service training program currently and undertake extensive research with our customers
The most important element of having a number of communication methods is to manage the process; there is no point in having a "call back" facility if there is no-one at the other end ready to return the call when the customer wants to be called.	Agreed. Our strategy is to communicate with an individual customer via the medium that suits them best.
The support of vulnerable and fuel poor customers should not be the sole issue of UK Power Networks.	Agreed. But we have a responsibility to work with other parties in respect of this.
We should broaden our measures of quality of service to include additional customers? In particular, should we measure customers that experience a power cut of less than three minutes?	The customer service reporting in ED1 will broaden the base of customers who are consulted re satisfaction measures. Whilst we have undertaken to monitor short duration interruptions (less than 3 minutes) during RIIO-ED1, compensation has not been extended to those customers affected
– **We would recommend that large public bodies are also included in this group and that they also are given information on the reasons for, size of the area affected, numbers of residents and businesses affected, and timeframes for repairs on power outages.**	– UK Power Networks has had a number of discussions, following on from the Critical Friends panels, on collaboration with local authorities in the context of major power outages. We anticipate these conversations resulting in further improvements in the provision of faults information.
– **The City Council is also concerned about fuel poverty, and would welcome a dialogue with UKPN on potential synergies to undertake works and reduce fuel poverty. It is suggested that careful attention paid to the whole-life cost of delivering infrastructure could lead to insulating customers against future energy price rises.**	– UK Power Networks would welcome the opportunity to have more detailed discussions on fuel poverty and on practical means through which DNOs and local authorities could co-operate.
PEOPLE	
When it comes to dealing with third parties UK Power Networks staff generally state that they must follow policy rather than having the scope to risk assess and modify where it makes sense. UK Power Networks staff appears to not be empowered.	In some areas, such as safety, it is important that employees have a clear set of procedures to follow. However UK Power Networks promotes the principle of accountability and would hope that its employees feel able to use their knowledge and experience when making

	decisions at work.
I have not found in the investment plan any reference to staff, how UK Power Networks perceive staff costs to change over time, a level of investment required to development existing staff and recruit and grow to meet the challenges ahead. The wires and transformers sit and hum; your people make the difference.	UK Power Networks has included an extensive development plan for its staff and contractors in the final RIIO-ED1 submission. This development plan provides security that UK Power Networks will maintain an adequately skilled workforce.