UK Power Networks

Business plan (2015 to 2023)

Annex 20: Business Plan Development Process

March 2014

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

UK Power Networks
Delivering your electricity

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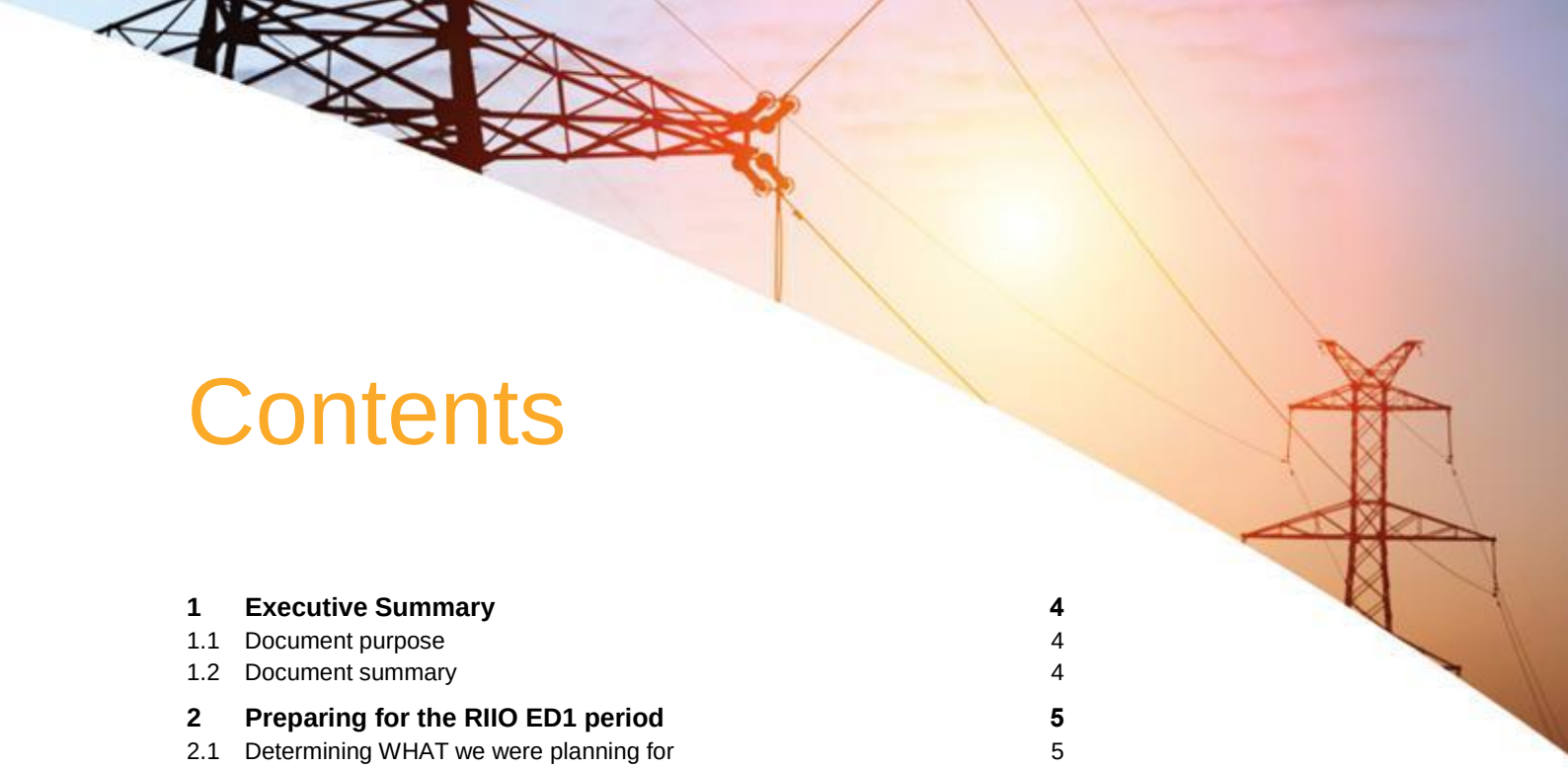


Contents

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

1.1 Document purpose

This document provides an overview of the planning and development process we went through to create the well justified business plan for RIIO ED1, including the transition and improvement initiatives we undertook to prepare for the period. It is not an exhaustive narrative but seeks to provide an overview of the whole process, and therefore refers out to relevant areas of the business plan for a more a detailed explanation of the different components and activities as necessary.

1.2 Document summary

The submission of our RIIO ED1 business plan to Ofgem is the culmination of over two years work to build the plan, engage with stakeholders, and prepare the business for RIIO. It was an iterative process developed through engagement with stakeholders, including customers, government bodies, suppliers and industry, to ensure our plans were aligned with their views and responded to their needs. We released a draft business plan for consultation in November 2012, and a business plan update in April 2013, before our submission to Ofgem for 1 July 2013 and March 2014 resubmission.

The plan was developed by relevant areas across the business, utilising technical expertise and local knowledge, and ensuring that those responsible for delivering the plan were involved in creating it. There has been engagement on the RIIO programme across the entire company to ensure the implications of RIIO are understood and we are ready to deliver the plan. Where areas for improvement were identified in the business, we have set up processes across the company to deliver them, including the areas of planning and forecasting for asset management, cost efficiency, data quality, stakeholder engagement, customer satisfaction and business transformation.

Over this period we also played an active role in the development of the price control framework through Ofgem's framework development working groups, helping to shape the outcomes and process.

We started the process of creating our business plan internally by developing, with stakeholders, our core planning scenario (the assumptions of future growth and demand that our plans would be based on) and the output measures that we would be judged against. We then planned the activity needed to deliver the outputs, including the investment needed on our networks to maintain them, increase capacity where necessary, and respond to distributed generation. We ensured innovative approaches were used throughout, and maximised the use of smart technologies. We calculated our indirect costs, and ensured our plans were deliverable and financeable. With plans defined, we ensured they were well explained and justified in the supporting narrative and RIGs data tables. All elements of the plan went through a robust internal and extensive external assurance process, ensuring we could have confidence in the quality of our proposals before submission.

We were the first DNO to release our draft business plan (including financial information) in November 2012, eight months before submission to Ofgem, allowing for comprehensive stakeholder engagement

2 Preparing for the RIIO ED1 period

Following Ofgem's RIIO final decision document in October 2010, we began to prepare for the changes brought by the RIIO requirements, and expected during the RIIO ED1 price control period, and started the planning process to create the well justified business plan for 2015 - 2023.

At the start of the process we had a change of ownership, involving the separation of the distribution business from EDF. This change has enabled us to focus completely on electricity distribution. Since separation, we have become a stakeholder-facing organisation, and have reviewed our investment strategy to ensure we are focused on outputs and innovation.

We knew that we would need to deal with changes in regulatory requirements from DPCR5 to RIIO ED1, and respond to the different incentives, tests and measures. In April 2011 PA Consulting were engaged to support the programme, utilising their technical and regulatory expertise. Their initial role was to undertake a review of the business preparedness for the RIIO requirements and recommend focus areas.

We have been supported by industry experts throughout the life of the programme

We initially needed to determine **what** we would be planning for in the 2015 – 2023 period. This included developing different planning scenarios, and responding to changes in the external environment such as the low carbon transition, as well as agreeing the outputs we would deliver.

We then needed to work out **how** we would deliver, planning the activity needed to manage the network and calculating the financial implications.

Where business improvements were needed, these internal change requirements were also reviewed and strategic projects set up to ensure delivery.

2.1 Determining WHAT we were planning for

We needed a clear understanding of what the environment would be like during the RIIO ED1 period (2015 – 2023) to plan how the business could best react. This included developing different **planning scenarios** for the period and responding to the **low carbon transition**. We also need to agree the **outputs** we would deliver.

2.1.1 Planning assumptions/scenarios

In order to determine the most likely future scenario to plan for, we had to make a number of assumptions about the growth in demand for energy, the use of emerging low carbon technologies and the volume of distributed/micro generation, and understand how this would impact the future capacity requirements of the networks. We worked in partnership with Element Energy, a specialist energy consultancy, to develop an innovative scenario modelling tool that analysed the effect of varying the low carbon uncertainties.

Our view of the future was developed with local experts and stakeholders

We built on the national planning scenarios developed by DECC (Department of Energy & Climate Change) and created regionally-specific scenario options to ensure the diverse nature of our networks was accounted for. In the summer of 2011, the scenarios and underpinning assumptions were debated at four dedicated stakeholder events (three regional workshops and an online forum) to seek the views of stakeholders from each relevant network area on the most likely planning scenario for the 2015 to 2023 period. Using this stakeholder and industry feedback, we created a 'hybrid' scenario which reflected our view of the most likely outcomes.

We used this (with consequent updates in light of the release new information) as our core scenario to define the planning assumptions that underpin our investment plans (for further information see Annex 3: Core Planning Scenario).

2.1.2 Responding to Low carbon transition

We are ready to be a leader of the transition to a low carbon economy

Starting with initial work in 2011 and continuing through 2012, UKPN's Executive Management Team and business areas were supported to review the external drivers of the transition to a low carbon economy expected during RIIO ED1 (based around a higher volume of new energy sources and a higher volume of demand) and analyse their impact, in order to develop the best response. A series of leading indicators were then identified to help recognise when a driver should elicit a response. We put plans in place to develop the necessary capabilities to facilitate the transition, and looked to integrate smart technology and commercial innovation (for further information see the Innovation Strategy).

2.1.3 Outputs

The development and agreement of meaningful 'outputs', measures and targets was also key part of the planning process. This was done internally to ensure we had a clear UKPN view, as well as being centrally developed by Ofgem. In autumn 2011 we undertook a range of engagement methods to ensure contribution from a wider range of stakeholders, this included a workshop, an online consultation, targeted interviews with stakeholders with expertise in one or more of the output categories, and focus groups made up of domestic customers (for more information on this consultation see Annex 19: Stakeholder Engagement Process, section 3).

The views from this consultation, in line with the output categories determined by Ofgem (safety, conditions for connection, customer services, environmental performance, network reliability and availability, and social obligations) were then reflected into the development of each DNOs' future plans including their investment requirements (see Annex 2: Forecast Outputs)

The outcomes not only informed our internal planning processes, but also the contributions that we have made to the development of the price control framework through, for example, the framework development working groups (see section 4.2) and responses to Ofgem consultations.

2.2 HOW we determined the plans for our networks

Incorporating our view of the future planning scenario and our understanding of our stakeholders' priorities for what we should deliver in the period, we commenced planning how we would manage our network over ED1. The activity and investment needed on our network relates both to the need to maintain our current infrastructure as well as responding to increases in demand by mitigation through utilising 'smart' technologies or increasing the capacity of our networks where necessary.

2.2.1 Maintenance of the network (non-load related)

We have developed bespoke forecasting models to improve long term planning for our networks

To determine what asset replacement, refurbishment and maintenance (non-load related expenditure) would be needed on our networks over ED1, we worked in partnership with industry experts to enhance our investment modelling capability to support our decision making and long-term planning. We developed a suite of models for different types of assets (for details see Annex 22: Asset Plan Production Process) to identify the existing and predicted 'health'/condition of our assets and plan the work needed to maintain them. We also led work as part of the Ofgem framework development working groups (see section 4.2) to include 'criticality' modelling functionality, which had not been part of DPCR5.

2.2.2 Capacity of the network (load)

To determine the capacity needed from the networks for ED1 and beyond, we embarked on a major development of our network forecasting capabilities as part of our strategic projects (section 2.3). We developed a new Load Related Expenditure Model with Imperial College London which provided enhanced long-term network growth forecasting. This used the predicted growth in peak power we had determined from our planning scenario modelling (section 2.1.1) and applied it to our networks. The model can be adapted to present outputs based on different planning scenarios, apply sensitivities and to consider the application of smart network technology. As well as the ICL LRE model, we were also actively engaged in the development of the Transform model, as part of the Smart Grid Forum's Work Stream 3, which focused on the options around smart solutions to address network capacity. We used these two models, along with existing 'bottom-up'/local knowledge planning techniques, such as Planning Load Estimates, to take a long-term view of the best way to develop our network and create the load-related investment programme.

2.2.3 Inclusion of innovative/'smart' technology

We have included a range of smart solutions throughout our network planning

As part of investment planning we ensured we would maximise the use of smart solutions to improve the way we manage our network and respond to the low carbon transition. This includes innovative ways of coping with growth in demand, better information and monitoring of our network, automated inspection techniques, and new maintenance techniques.

Further information on the process of determining and maximising smart technology in our plans can be seen in Annex 9: Smart Grid Strategy. This also describes how we will prepare our networks for the changing customer requirement due to the low carbon economy.

We also developed the **Smart Network** implementation plan to ensure these innovative 'smart' network solutions would be embedded in the planning and delivery functions across the business. It sets out a clear process for assessing the use of new innovative technologies as they emerge.

We also set up the **smart meter readiness** project to ensure we will be ready to make the most efficient use of the data available from the national smart meter roll-out and support the roll out itself.

2.2.4 Refining the overall Network Asset Management Plan

The outputs of the load and non-load related modelling underwent technical expert review to ensure all considerations were taken into account. They were then aggregated and optimised to form our overall investment plan, the Network Asset Management Plan (NAMP), which defines our planned spend on our network for the RIIO ED1 period. We tested the complete NAMP to ensure that it was thoroughly justified, and went through a rigorous assurance process (see section 5.3.3). We also ensured it was practically deliverable (by our staff, contractors and suppliers), and capable of being flexed to respond to alternative future scenarios.

For further information on the modelling and planning process for load and non-load investment see Annex 22: Asset Plan Production Process.

2.2.5 Indirect costs

Following on from the direct cost plan (NAMP), 'closely associated' indirect costs (activities that are related to our core work on the network, such as design, project management, engineering and clerical) and business support costs (such as HR, IT and finance functions) were forecast. Previously this had been done solely with a bottom up approach on a historical basis. To support this we developed an indirect cost model to enable us to forecast more accurately based on our future plans. The model is based on a direct correlation between the movements of direct and indirect costs; to derive these relationships we used historic trends and insight from our management teams. The model was not used for IT, transport or property costs, which were formed from bottom-up analysis of the requirements based upon key factors such as actual vehicle replacement profiles and known IT system refresh programmes.

We have also had to take account of regional cost adjustment factors. In LPN, through bottom up detailed cost analysis and established (RIIO-GD1 and T1) top down regional cost adjustment methodologies, we have identified and justified £22 million per annum of additional cost items. The main drivers of these additional costs are:

- **Transport & Travelling** – congestion charges, parking and site access. Importantly recent changes to legislation relating to street works has increased these costs significantly
- **Excavations** – Accessing underground cable networks in high density urban areas and environmental restrictions on street works
- **Operations** – Scheduling work, accessing sites, and gaining consent from multiple interested parties such as property owners and local authorities
- **Resources** – Higher labour rates and allowances
- **Security** – Higher network asset security requirements and access to assets
- **Properties** – Purchasing and accessing higher cost land and buildings
- **Contractors** – Higher contracted labour rates (due to shortage of skilled labour)
- **Tunnels** – Building tunnels for underground cables

We have adjusted the unit costs underpinning LPN's expenditure forecasts to reflect these regional cost differences.

We have also undertaken a similar bottom up exercise in SPN resulting in £11 million additional costs, and made the appropriate adjustments.

We have also taken account of Real Price Effects (RPE) as well as ongoing planned efficiencies. Key elements of our cost base for the next planning period will increase at a greater rate than the retail price index (RPI), which measures general prices in the economy, due to the specialist labour and materials required to operate our networks. We engaged NERA Economic Consulting to independently estimate the real price effects relative to RPI for the next planning period for labour, materials, plant and equipment.

NERA has also reviewed the potential on-going annual productivity improvements during RIIO-ED1. We have included an on-going productivity estimate of 1.0 per cent per annum for both operational expenditure (including total indirect costs) and network investment. In recognition of the slightly higher potential for on-going efficiency in London due to the inclusion of regional cost factors we have increased the on-going annual productivity improvement for LPN to 1.25%.

2.2.6 Financing

To test that the plans we developed would be financeable, we developed a bespoke corporate finance model. This was reviewed and audited by Ernst & Young to ensure consistency with the RIIO framework.

The model used our direct (network related) and indirect costs and calculated financing requirements and cashflow. It enabled us to derive the most appropriate mix of measures to ensure our plans for each of the networks:

- Provides acceptable credit and equity metrics
- Provides appropriate return to investors
- Meets investor expectations over the long term, given uncertainty over long-term usage of the electricity distribution network
- Complies with Ofgem's stated policies

We used this to determine the real cost of equity required to maintain the funding needed to deliver our plans (for further information see Annex 17: Financeability of the business plan).

2.3 Strategic business change projects

We have been consistently improving our business processes, service delivery, work delivery and creating culture change

Beyond the core planning process we also knew business change was needed in some areas. In early 2011 we started a review, with support from PA Consulting, to identify key areas where improvement in performance was needed, or where changes were needed in to respond to change in the environment or regulatory requirements for the business plan. Projects were set up to address any improvements needed or fill any gaps, and these were reviewed and updated in July 2012 to ensure they were still aligned with the RIIO requirements.

The key areas for these strategic projects were:

Asset investment planning – we needed to develop top-down as well as bottom-up capital programme forecasting and planning methods over a longer timeframe to respond to the 8 year (rather than 5 year) planning period, and utilise new modelling techniques to support decision making, ensuring the asset plans would be well justified. This led to the ICL load related expenditure model and EA Technology APR model (see section 2.2 above).

We wanted to improve the accuracy of our data on **actual costs per unit of work** incurred to ensure we had solid information for planning and decision making. We reviewed and improved the existing information on our systems, and set up processes to improve future recording.

We also reviewed the **efficiency of our direct costs** – seeking improved efficiency while delivering against our safety and customer satisfaction performance targets. Working with Accenture, we undertook a thorough review of the most efficient costs for work on the network possible in current conditions. We had already been through a significant process to improve our indirect costs through the Indirect Cost Efficiency programme, reducing our head count by 600 (25%) in 2011.

Quality of supply – We sought to improve our rankings in the Quality of Supply DNO league tables by reducing the number of interruptions to customers' power supply, reducing the time power supplies are down for when there are interruptions, and improving the supply restoration process (for further information see Annex 6: Quality of Supply).

Customer satisfaction – following the 'Broad Measure of Customer Satisfaction' survey results, and other reviews and feedback, we sought to implement more active customer management activities and undertook a range of improvement projects (see Annex 4: Customer Satisfaction).

Business transformation – this built on the initial customer service work to look at process improvement across the business and involved £50 million of investment (see Annex 12: Transformation).

Stakeholder engagement – We developed a plan that would ensure a strong emphasis on stakeholder engagement, put in place best practice arrangements and ensure stakeholder input was at the heart of our business planning process (see Annex 19: Stakeholder Engagement).

3 Managing the business plan programme to delivery

Delivery of the business plan was managed in line with good programme management practices from the outset. The initial phases of the programme had focused on review and analysis, high level visioning, setting the strategy, planning, and initial content development (March 2011 – July 2012). In summer 2012 there was a review and update of the programme arrangements to ensure they were suitable for the delivery focus of the next phase of the programme. Many workstreams were already up and running, but a review was undertaken to ensure they remained aligned to achieving the programme outcomes and test whether there were any gaps to delivering everything needed for the business plan. A specific Programme Management Office was set up and the governance and reporting arrangements were updated. The updated programme management arrangements were developed with PA Consulting and the programme team, and were written up in a programme handbook and circulated to workstream leads and others directly involved in the programme.

The following timeline summaries the key phases of the programme and highlights key activities in the process.

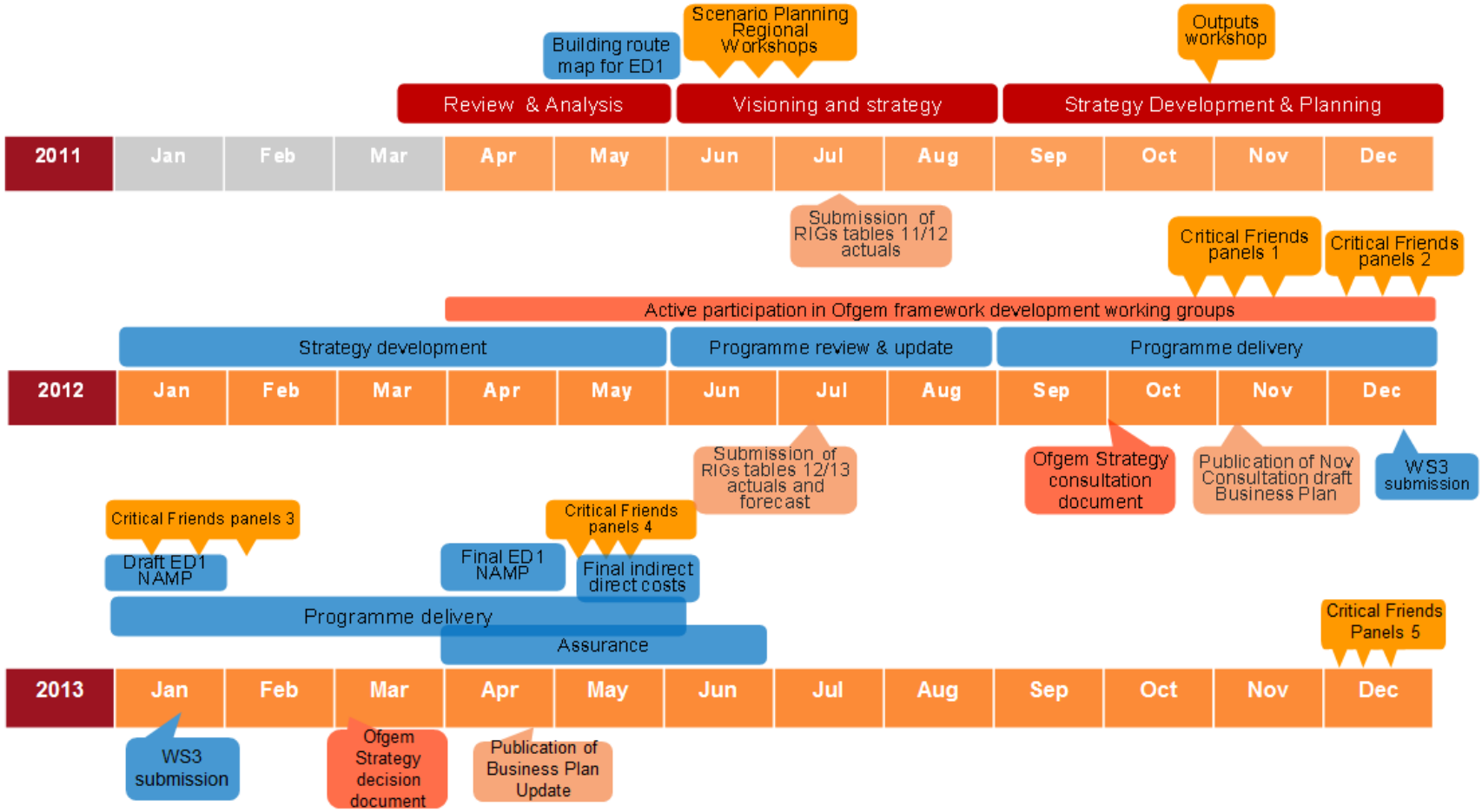


Figure 1: Overview timeline of UKPN's RIIO ED1 Business Plan programme

3.1 Leading the programme

The programme was sponsored by the Chief Executive and Director of Strategy & Regulation, led by the Head of Regulation, and managed by the programme manager. Each workstream was led by the relevant business area (see below).

The programme was led from the top of the organisation and involved all relevant business areas

3.2 Defining the workstreams

Much of the content of the business plan was developed though business-as-usual activity, aligned to ensure it was delivering what was needed for the specific requirements for RIIO ED1. Other workstreams had been specifically set up in preparation for RIIO, such as the strategic projects (see section 2.3 above). Each workstream had a clear lead from the relevant business area responsible for delivery (eg Asset Management, Capital Programmes, Network Operations, Connections, Finance, Strategy & Regulation) with roles and responsibilities of the team set out.

Figure 2: Overview UKPN RIIO programme workstreams

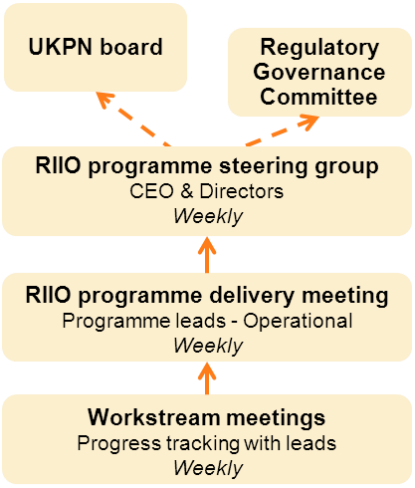
Workstream	Description
Developing output measures	Setting the UKPN targets against the Ofgem agreed output categories with clear and evidenced justification. See section 2.1.3
Planning assumptions and scenarios	Managing uncertainty by determining assumptions for future planning to create an agreed 'core scenario' and understanding alternatives to enable a flexible response. See section 2.1.1
Embedding Innovation	Ensure innovation is embedded throughout the business and the plans for ED1. See Innovation Strategy
– Smart technology and the low carbon transition	Determining and agreeing the smart solutions to be used on the network in the period. See Annex 9: Smart Grid Strategy
– Smart networks plan	Developing the implementation plan to embed these smart solutions in the business.
– Smart meter readiness	Supporting the implementation of the smart meter roll out programme and preparing for effective use of the data that will become available. See Annex 10: Smart Metering
Network Asset Management Plan including load and non-load modelling	Developing the activity and expenditure forecasts that relate to load on the network (work required to add to the infrastructure), as well as non-load work (on condition of assets) and related operating expenditure. See section 2.2

– Unit cost improvement project (data quality)	Improve the quality of data in the systems which calculates the cost of each unit of activity of work, and the process for recording activity. These costs directly feed the NAMP and RIGs tables.
– Direct cost efficiency	Detailed analysis of the components of our direct costs, including efficiency improvements to deliver a reduced cost per unit of work. See Annex 13b: Direct Cost Efficiency
Indirect costs	Development of HR, IT, finance, property and transport costs; closely associated indirect costs, and non-operating capex costs. See section 2.2.5
Finance and financing	Calculation of costs such as pensions, rates, tax, interest and debt, and well as charging and financing arrangements. See section 2.2.6
Stakeholder engagement	Proactive engagement plan as part of BAU activity and specifically on the business plan to ensure stakeholders views are fully integrated into the planning process. See Annex 19: Stakeholder Engagement
Customer Satisfaction	Activities to improve customer service in response to the results of the Broad Measure of Customer Satisfaction survey. See Annex 4: Customer Satisfaction
Business transformation	£50m shareholder funded business transformation programme to improve processes and delivery. See Annex 12: Transformation

Table 1: Workstream descriptions

3.3 Defining the governance

The governance structure was also updated during the review period to ensure clear lines of decision-making, reporting and control, allowing effective delivery of the business plan within the constraints of the programme.



The governance arrangements ensured whole business engagement

Figure 3: RIIO programme governance groups

- The UKPN board and Regulatory Governance and Planning Committee are part of the UKPN standard business governance which the Programme Steering Group fed into when necessary.
- The Programme Steering Group was chaired by the CEO and attended by all relevant directors across the business. It was the key decision making forum within the programme. It was held weekly; every 4th meeting was also attended by PA Consulting to provide their views on the status of the programme.
- The Programme Delivery meeting was an operational team meeting attended by key UKPN and PA Consulting personnel. Key operational issues were discussed and progressed.
- Workstreams specific meetings were held with every workstream lead and the Programme Manager. These meetings were used to track the progress of the respective workstreams and to support activities.

3.4 Tracking and reporting progress

Tracking and reporting of programme progress was streamlined and aligned to the updated governance mechanisms to support quick and informed decisions to be made in a controlled manner. The below hierarchical triangle summarises the different levels of tracking and reporting.

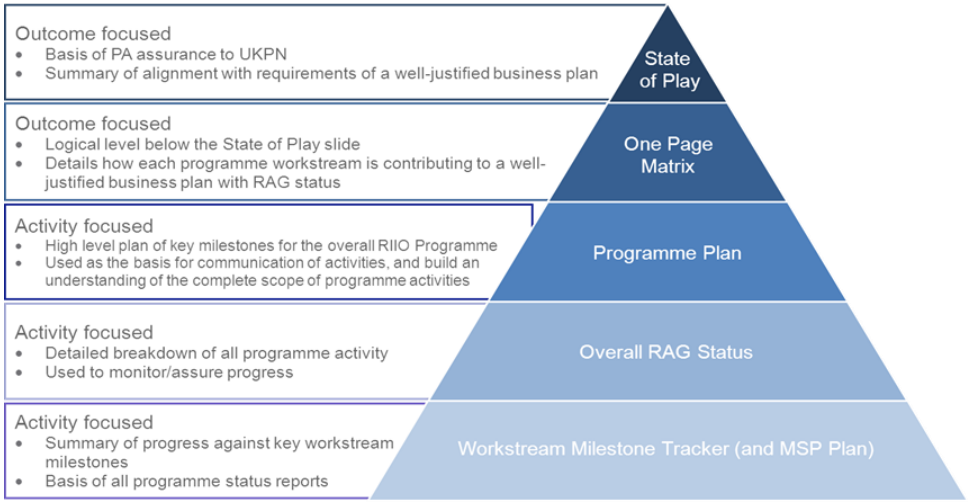


Figure 4: Hierarchy of programme information

3.4.1 State of Play – key components of a well justified business plan

Part of the role of PA Consulting was to ensure a focus on the development of a well justified business plan was maintained. This started with initial analysis in 2011 of the key components of a well justified business plan, and the fast track standards needed for each. These were reviewed and agreed between PA and the RIIO team and were summarised into a visual report (Figure 5).

Each element was then RAG (Red, Amber, Green) rated, this was then used at the basis for on-going monitoring, review and support to ensure visibility of the programme status and to focus activities on priority areas. Progress was tracked throughout the life of the programme and reported to the Chief Executive and directors on a monthly basis, providing a technical assurance on progress. Areas that had changed status since the last report (either improving or worsening) were highlighted and discussed in detail.

Regular independent review ensured an external perspective and a focus on RIIO outcomes

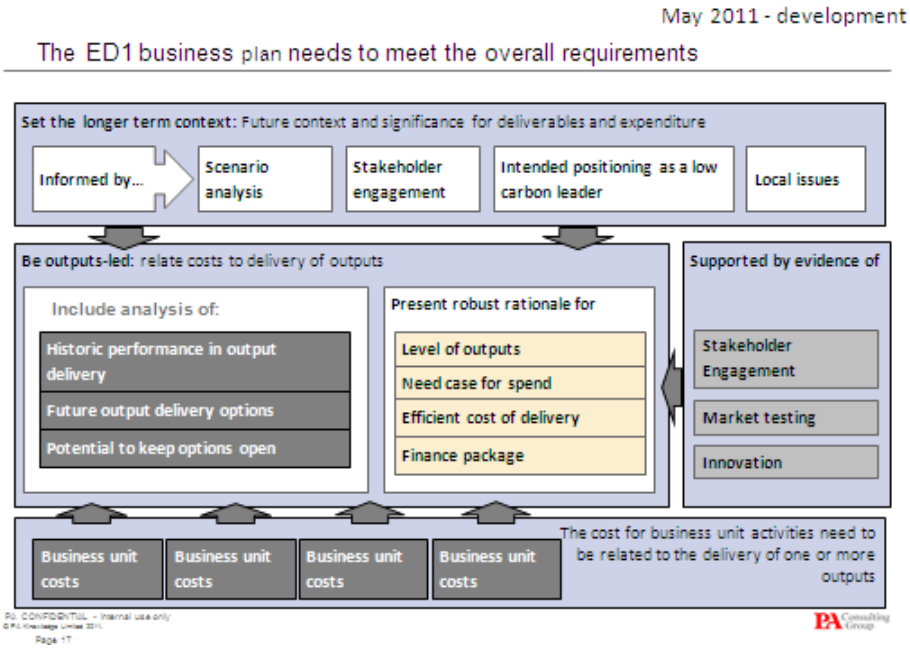


Figure 5a: State of Play - key components of a well justified business plan

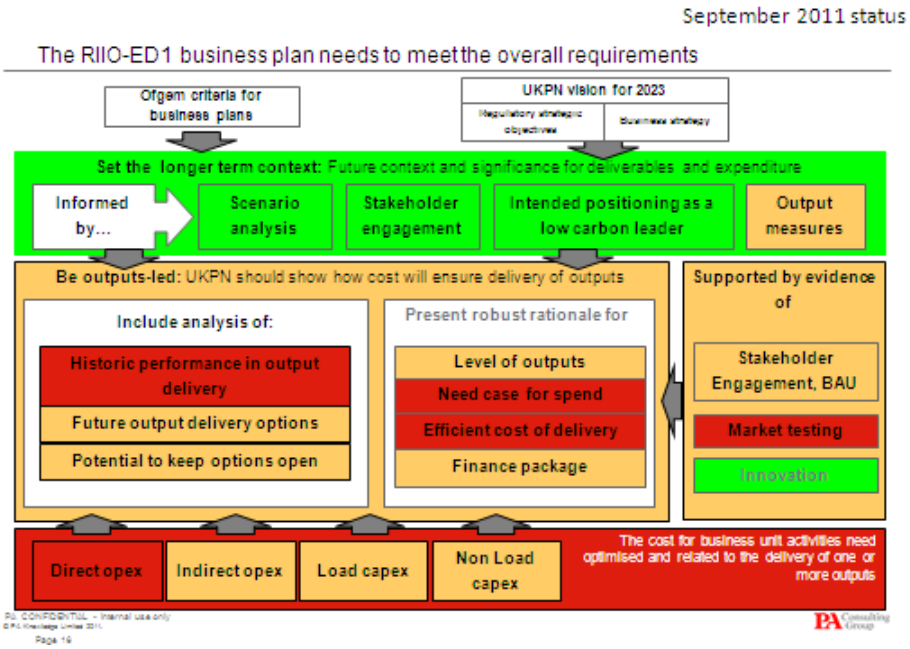


Figure 5b: State of Play – RAG status early in the programme

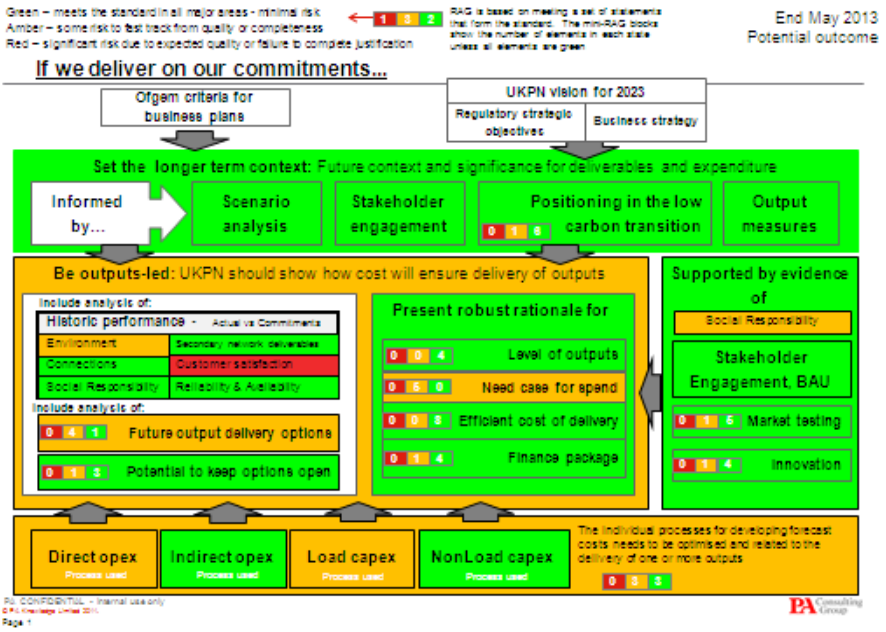


Figure 5c: State of Play – RAG status at the end of the programme

3.4.2 One page matrix of workstream activity against key components of a well justified business plan

The key components set out above were also plotted against the workstreams in Table 1 in a one page visualisation matrix. This process enabled a more granular analysis of the contribution of each workstream to developing the components, and highlighted gaps where workstreams were either not directly contributing to the programme, or components were not being progressed by any workstreams. The matrix was updated regularly at the programme delivery meeting to understand progress.

3.4.3 Programme plan and tracker

The programme team worked with workstream leads to undertake detailed programme planning, and the plans were reviewed and updated throughout the life of the programme. A detailed MS Project plan and a high level visual summary were produced to enable ease of communication to different levels of the business. Progress against the planned activities was tracked via the workstream meetings and other updates, and captured in a detailed tracker.

3.5 Risk and issue management

Programme risks and issues were managed in line with the corporate process and best practice programme management methodologies. They were regularly reviewed at the various levels of the programme and reported up to the steering group.

4 Engagement

4.1 Business engagement

Engagement across the business in the development of the plan was two fold – not only was the plan created and driven by the relevant business areas, there was also a clear engagement/education programme for the rest of the company on the RIIO process and its implications.

4.1.1 A business driven plan

Plans were developed by the relevant areas of the business and co-ordinated across the programme

The various components of the business plan were created and driven by the relevant area of the business that had the expertise and would be responsible for delivering the activity (e.g. Asset Management, Capital Programme, Network Operations, Connections). This was co-ordinated into the overall business plan by the programme team, which sat within the Regulation team.

The programme was sponsored by the Chief Executive, who was actively engaged and chaired the weekly programme Steering Group (the programme governance can be seen in section 3.3 above). The directors of all the relevant business areas were also engaged in the weekly steering group, providing commitment and leading the programme in their relevant directorate.

The programme also involved all levels of the organisation, from the CEO and directors, to the business workstream leads, to the specialist teams that made technical engineering or economic site specific decisions.

Business leads were also active participants in the programme of stakeholder engagement. This allowed managers to receive direct feedback on their part of the business and shape their contribution to the business plan.

4.1.2 A company engaged in the RIIO process

For those not directly involved in the planning process, there has been a range of activities to ensure staff across UKPN are familiar with, and prepared for, the regulatory considerations and the changing priorities for the RIIO-ED1 period.

Direct briefings

There have been specific briefings arranged with management teams across the business to ensure they understand the principles through which we are regulated and how this might impact on their day-to-day operations. These were supported by internal publications, circulated to management to brief their staff and published on the company intranet.

There were three phases of engagement:

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

These were localised briefings on the outcomes of DPCR5 and were supported by “A guide to DPCR5” which provided an explanation of the key elements of the regulatory settlement and the business plan for the period 2010 – 2015.

2011/12 – An introduction to RIIO

These briefings provided an overview of the RIIO process, the key elements of the business plan and the timetable for the development of the plan, as well as specific discussions with each management team focusing on the RIIO outputs that they would be responsible for. They were supported by the publication of “An introduction to RIIO”, which described the principles of the RIIO framework and the developments from the existing framework in DPCR5.

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

The third round of briefings provided more detail on the development of RIIO and highlighted Ofgem's approaches to benchmarking to bring a focus onto efficient performance and accurate capture of costs and achievement. The brochure described the RIIO-ED1 proposals as they were likely to emerge from Ofgem's Strategy consultation in September 2012 and gave an update on the industry working groups that had been running throughout 2012. It also gave more details on the output measures for RIIO-ED1, the elements of a well justified business plan, 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.

Engagement of staff representatives

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 and what the implications were for our business strategy.

Inclusion of the RIIO framework and principles in training

Through March and April 2013 we ran training courses to increase the commercial awareness of managers across the business and ensure they understand the requirements for running a cost-efficient, output driven regulated 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. This will be filtering throughout the organisation in due course, and further sessions are planned.

4.2 Engagement with the Ofgem process

UKPN have played an active role in supporting Ofgem to develop the RIIO framework

One of the stated objectives of the new RIIO regulatory framework is to bring forward policy development to the earlier stages of the price control process, thus enabling the DNOs to develop their business plans around a stable set of underlying industry requirements and regulatory incentive mechanisms. To facilitate this, Ofgem formed a series of working groups with the DNOs which commenced in March 2012. The working groups covered the areas of cost assessment, flexibility and capacity, reliability and safety, finance, losses, connections, customer and social issues, environmental, innovation and data assurance, and each was tasked with developing the policy framework in their area.

UK Power Networks staff have played an active and leading role in many of these working groups. In most cases, our representative on the working group was a senior manager with a direct responsibility for that area of the business, rather than a member of the regulatory or price control team. This was to ensure that the mechanisms being developed took account of the day-to-day practicalities that might arise when they are implemented.

Through our involvement in these working groups, we have been very successful in influencing the development of the RIIO-ED1 policy agenda. The following provides three examples where our proposals have been adopted:

In response to feedback from our stakeholders about the lack of a customer-centric approach from DNOs in the delivery of Connections, we proposed a set of new incentive arrangements in the form of the Time to Connect incentive. The purpose of this is to drive continuous improvement in the most fundamental aspects of the Connections customer experience, namely the time to obtain a firm quotation for a connection, and then the time to deliver that connection to the electricity network.

As part of our contribution to the Cost Assessment working group, we commissioned an economics consultancy to develop a Total Cost (Totex) model as a candidate for inclusion within Ofgem's assessment processes. Totex modelling is a new activity for regulation of our industry and UKPN were keen to ensure that any model was developed independently and on robust economic foundations. Our stated intention was always one of donating this work to the price control process, and the industry more widely, and we welcome the fact that Ofgem has adopted this model and sought to develop it further.

DPCR5 saw the introduction of Load and Health Indices to assist in monitoring the effectiveness of investment in network assets. UKPN was a strong supporter of this initiative, and it has not required a great adjustment to our asset management processes to make use of these indices. As part of the Reliability and Safety working group we have led on work to take the use of these indices on to the next stage, and specifically, we have undertaken much of the development work resulting in the introduction of a Criticality and Risk index alongside the Health Index. This will result in a more sophisticated approach to asset replacement and should ensure that companies are targeting their investment to those assets where failure would have the greatest impact on customers.

4.3 Engagement with stakeholders

We've had great feedback from our stakeholder events, and have demonstrated how they have influenced our business plans

Our proactive approach to stakeholder engagement in developing the core components of the business plan has been discussed above (eg planning scenarios, output measures) and the way we built on stakeholder feedback in the iterations of our business plan can be seen below. For more detailed information on the how we engaged stakeholders, their feedback, and our incorporation of their input into the business plan, please see the Process Overview.

4.4 Engagement with suppliers

We ensured a substantial programme of consultation specifically with suppliers (including bilateral meetings with all the major suppliers and forums representing the smaller suppliers) to understand their expectations and needs and focus on how we can better work with them to ensure that customers receive value for money over the long term.

We held two rounds of engagement with suppliers. The first followed publication of our November 2012 draft business plan for consultation. In this consultation, we were the first DNO to provide a full forecast of expected changes to revenue during ED1. We met again with suppliers following the publication of our April Business plan update.

We also presented our draft business plan at the small suppliers forum, hosted by the Cornwall group, and sought feedback.

Supplier feedback in this progress has been very positive and we have been able to proactively respond to challenges they have raised, including specific proposals on revenue predictability. We have proposed to fix our Distribution Use of System (DUoS) prices for 12 months from 1 April 2015, based on the business plan submission on 17 March 2014. Suppliers were also very keen to see the overall expected revenue changes during RIIO ED1, and we provided an initial forecast in November 2012 an update in April 2013 before the final proposed track of revenues in the July business plan.

5 Process to compile the business plan document

Building on the core components of the business plan, we also need to compile the evidence, justification and explanatory documents. Developing this suite of documents was an iterative process which took on board engagement with Ofgem and stakeholders (as described above) and allowed us to create an early draft business plan for consultation, an updated plan, and the final plan for submission.

5.1 Draft Business Plan for consultation – November 2012

In November 2012, we published Consultation Draft Business Plans for each of our DNOs, which set out their proposed:

- Outputs for the 2015 to 2023 period
- Expenditure forecasts for each year of the 2015 to 2023 period
- Revenue requirements for each year of the 2015 to 2023 period
- Prices for the for the 2015 to 2023 period

Our iterative process has enabled stakeholders to have maximum comment on our plans

Stakeholders were invited to comment on all aspects of the Consultation Draft Business Plans and the consultation questions included throughout were designed to assist stakeholders challenge, and apply a robust review of the key issues. There was a two month consultation period, ending 4 February 2013, and a variety of consultation pathways were available including 'critical friends panels', an online survey and by post [see the Process overview document for further information on this stakeholder engagement].

We considered that publishing and inviting feedback on our Consultation Draft Business Plans, eight months prior to them being finalised for submission to Ofgem, was important to provide sufficient time to:

- Assess and incorporate feedback so as to further the develop our business plans
- Ensure a strong understanding of the services, and service standards, that customers and other stakeholders want in the next price control period

5.2 Business Plan Update – April 2013

Following the consultation on the November 2012 draft business plan, the feedback from this, along with on-going internal development, was used to update the plans and feedback to stakeholders on our current proposals ahead of submission to Ofgem in July. This update was discussed at the fourth round of critical friends panels and gave stakeholders an opportunity to see how their feedback had been incorporated, as well as provide any further comments.

5.3 Business Plan submission – March 2014

In the final months before submission, the focus was on finalising the Network Asset Management Plan and associated indirect costs, completing the RIGs actual and forecast data tables, refining the commentary, undertaking the thorough assurance programme on the full suite of documents, and going through the final sign-off process across the business.

5.3.1 RIGs data tables and commentary

The 2012 submission of RIGs actual and forecast tables and commentary to Ofgem was the first provision of forecast data for UKPN, and provided a baseline for the RIIO ED1 period. The consequent data sharing between Ofgem and the DNOs enabled a range of benchmarking activities with which to test our costs.

Following submission of the tables, we undertook a thorough lessons learnt exercise to enable improvements to be made for the July 2013 submission. Interviews were held with all those involved across the business to capture their experience, these focused on the areas of process, communication, information, and engagement.

The 2013 process was managed by a central RIGs team, with each RIGs table having a data owner from the relevant area of the business. It was their responsibility to populate the table and provide accompanying commentary to the numbers. The data sources and population method varied depending on the table: actuals were populated from various data capture systems; forecast tables were mainly populated from the NAMP for the direct costs, the indirect cost model and the corporate finance model, business data was also added by relevant teams. The tables, owners, reviewers and data sources were all captured in a comprehensive RACI-style log.

The 2014 business plan re-submission followed a similar process to the original business plan submission. A thorough review of the originally submitted business plans was carried out over the autumn of 2013, identifying errors and areas of weakness within the original business plan submission. Following the fast-tracking announcement UK Power Networks undertook a formal review and update to the business plan. This included addressing issues identified by Ofgem in their fast tracking decision. UK Power Networks also commissioned KPMG to carry out a data review of the draft completed business plan templates from the 4th February. KPMG analysed the Ofgem model (the Model) that UKPN completed, in order to identify:

a) Potential incomplete and/or missing data;
b) Negative costs or volumes;
c) Potential inconsistencies between volume and cost entries by identifying instances where costs have no associated volume (or vice versa); and
d) Potential inconsistencies between historical numbers and forecast numbers through trend analysis of historical and forecast periods.

The results of KPMG's work can be summarised as follows:

Data analysis was performed on approximately 1.2 million input cells from the Ofgem business plan data template, which resulted in only 5,278 cells (less than 0.5% where further investigation or clarification was required to confirm that an appropriate treatment was applied by UKPN to the cell; and after confirming that the appropriate treatment was applied by UKPN, less than 38 cells (less than 0.003%) remained to be considered by management. The content of these cells was considered and where a material issue was identified a change was made. KPMG also tested on a sample basis the cost and data inputs on the CV3 and CV101 BPDT tables to the underlying PIMS records as well as a targeted number of checks on a sample of items from the CV3 and CV101 BPDT tables in order to consider whether the narrative description is consistent with the description of the items in PIMS. Their work indicated that the cost and data inputs on the CV3 and CV101 BPDT tables agreed to the underlying PIMS records. No issues were identified.

Throughout the population of the tables, an auditable approach was ensured. Tables were linked to source documents, allowing us to trace from which source each of the figures were being drawn, and whether it was up to date. The tables were reviewed by the relevant business team, before being passed to the Regulation team for final review, assurance and co-ordination. The final assured numbers and commentary were signed-off by the relevant director for the area and the board as a whole before submission.

5.3.2 Business Plan documentation

The final business plan commentary was structured in line with the Ofgem guidance in the Strategy decision document (March 2013). The suite of documents covers UK Power Networks as a whole, and the specifics for each DNO (LPN, SPN and EPN):

- A One Page Summary of each DNO's business plan
- An Executive Summary of each DNO's business plan, plus an overview for UKPN
- A Process Overview document (one for UKPN)
- An Innovation Strategy (one across UKPN)
- A Core narrative (technical) for UKPN as a whole and for each DNO
- A range of annex documents (each at UKPN level):
  - Output delivery (historic and forecast)
  - Core planning scenario assumptions

- Asset plans (volume) justification
    - Process
    - Load – scheme papers and regional development plans
    - Non-load & opex – asset stewardship reports and scheme papers
- Cost justification
    - Direct cost efficiency
    - Regional cost justification
    - Cost Benefit Analysis – 68 CBA's covering 65% of UKPN's capital programme
- Managing uncertainty & allowing flexibility
- Network plan deliverability
- Workforce renewal
- Customer satisfaction
- Social commitments
- Quality of Supply
- Losses
- Adapting to climate change
- Smart grid strategy
- Smart metering strategy
- IT Strategy
- Transformation
- Financeability of the plan
- Revenue and pricing
- Stakeholder engagement
- Business Plan development process
- Assurance
- What's changed and why
- Confidential information

- RIGs Actuals and forecast data tables and commentary

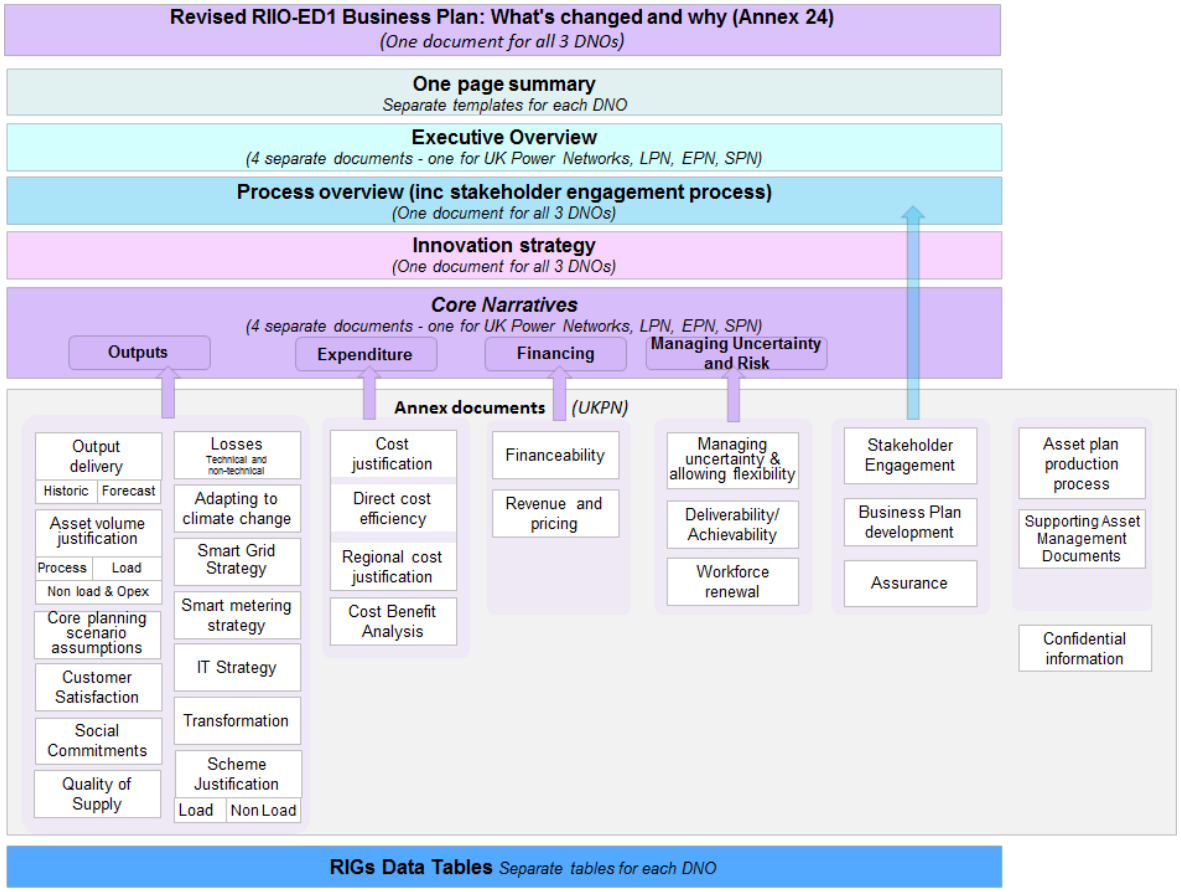


Figure 6: The structure of the suite of documents that comprise UKPN's business plan

5.3.3 Assurance

Our plans have undergone extensive external assurance to ensure they are robust

Comprehensive assurance was undertaken on all elements of the business plan. The level of assurance on each component was determined by the level of risk/significance of that element in relation to its impact on the price reset, to ensure the appropriate level of internal and external scrutiny.

There were 6 key elements of development and assurance that ensured quality:

Network investment plans were developed in line with Asset Management quality standards, policies and procedures

There were agreed quality standards from the beginning of the process and these were adhered to in the development of all plans (see Annex 22: Asset Plan Production Process)

PA Consulting provided delivery support and assurance throughout the process

Since coming on board at the beginning of the programme in April 2011, PA Consulting has worked in partnership with UKPN to support the development of key components of the business plan, focusing on areas where the most change was needed for the RIIO period. They have acted as a 'critical friend', reviewing and assuring various elements of the programme and the business plan narrative.

Specialist technical and consulting support was sought in development of specific areas of the plan

A range of specialists have been engaged to support the development of specific tools, models or components, these include Element Energy, EA technology, Enzen, Oxera, Imperial Collage London, SKM, PA Consulting, Chiltern Power, Accenture, Ernest & Young.

All content was reviewed internally by the relevant business area and the Regulation team

Business areas were responsible for the first review and quality assurance of their own work before second review, co-ordination and alignment by the Regulation team.

External stakeholders reviewed critical elements of the plan and the business plan overall

Key components of the business plan have been tested and debated with specific stakeholders, including the planning scenario panels, the output measures engagement, and the Innovation strategy panel. There has also been a series of 'critical friends' panels held on the business plan as a whole, which has enabled its iteration and development.

Comprehensive external assurance was undertaken

Specific independent assurance was provided in relation to all principal components of the business plan. This focused on the completeness, accuracy and appropriateness of the data and analysis, and accompanying narrative. It also included identifying potential weaknesses and setting out the corrective actions required to be taken before submission of the business plan. A range of specialists were engaged to assure different elements.

The significant aspects of the business plan for which external assurance or challenge were sought are:

- PA Consulting has provided advice, quality assurance and monitoring of the development of the Business Plan since 2011. As well as reviewing the cash-flow risk model and our indirect costs to identify opportunities for greater efficiency, based on benchmarking our business support costs against a range of other utility companies
- Navigant and PwC reviewed and provided feedback on our November and April business plan consultation documents
- Dialogue by Design managed and facilitated early engagement with stakeholders to help our understanding of planning assumptions and potential outputs
- Element Energy assisted us with economic modelling and reviewed our assumptions for economic growth in the UK economy, and other drivers for load growth including drivers for decarbonisation of the economy (e.g. electric vehicles)
- Sinclair Knight Merz re-assessed the reasonableness of our asset investment, Opex expenditure and outputs forecasts
- An independent firm of chartered accountants reviewed our financial model
- Chiltern Power assessed the feasibility, availability, suitability, and completeness of the smart network solutions being used within our Business Plan
- Frontier Economics assisted with the analytical and economic development of a totex benchmarking model
- Oxera and First Economics provided advice on the cost of capital and other financial matters (through the Energy Networks Association)
- NERA reviewed our internally estimated Real Price Effects (RPEs) and Total Factor Productivity (TFP) for the period 2015 to 2023 to ensure that they are economically justified and robust
- Investment Property Databank (IPD) provided cost benchmarking analysis to inform our property related expenditure forecasts and to measure the efficiency of the estate
- ImprovIT provided benchmarking cost analysis to inform our IT related expenditure forecasts and ensure that they are efficient
- Turner and Townsend assisted with the development of UK Power Networks' deliverability assessment of the capital programme across the RIIO-ED1 timeframe
- KPMG reviewed the business plan data templates for consistency with Ofgem requirements, completeness and accuracy to source IT systems
- Internal assurance business plan data was reviewed and signed-off by the responsible internal data owner

For further information on the assurance process see Annex 21: Assurance

6 Next steps

Following re-submission of the business plan to Ofgem on the 17 March 2014 we will move to the next phase of the programme in preparation for evaluation and responses form Ofgem and stakeholder feedback. We will again review the programme governance and management to ensure we are set up to respond to queries raised and align resources to appropriate activities.

We are expecting initial feedback and comments from Ofgem over summer 2014followed by the publication of their Initial Determinations in July. The programme will then respond based on the outcomes of this decision.

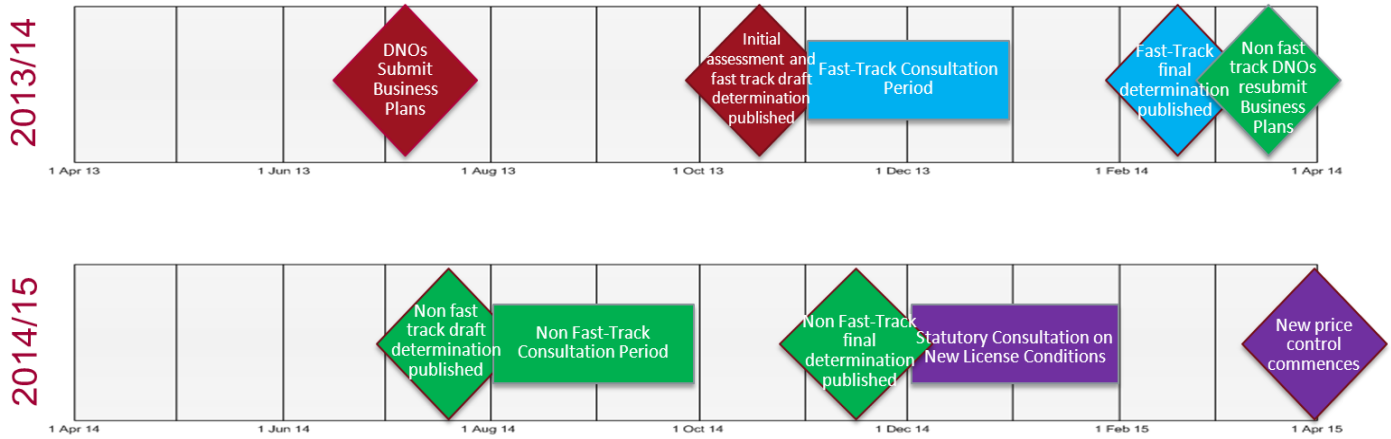


Figure 7: RIIO ED1 – Ofgem timetable