SP Energy Networks 2015–2023 Business Plan

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Annex

Long Term Strategy

SP Energy Networks

March 2014

SP ENERGY NETWORKS

Long Term Strategy

March 2014

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1. Scope

This annex describes the long term developments in our operating environment and our associated actions for addressing these. This is based on a view of what the likely developments will be towards the end of RIIO-ED1 and in subsequent price control periods. Our long term strategy has been developed to address the following 3 key considerations:

1. *changing customer requirements;*
2. *managing our assets; and*
3. *our people*

A number of issues impacting our strategy are ongoing in the sense that they affect us now and will remain important in future. An example is the drive to improve the quality of service experienced by customers. Such issues are fully addressed elsewhere as part of our wider ED1 plan and we have not sought to replicate this. This annex focuses on the issues that emerge or become more significant in the periods beyond RIIO-ED1 and issues which have a much longer time horizon to be addressed.

This annex does not consider wider impacts such as major political changes.

2. Table of linkages

Document	Chapter / Section
SP Energy Networks Business Plan 2015-2023	Chapter B1 – About Us a. Our strategic vision and guiding values
SP Energy Networks Business Plan 2015-2023	Chapter C5 – Outputs
SP Energy Networks Business Plan 2015-2023	Chapter C6 – Expenditure
SP Energy Networks Business Plan 2015-2023	Chapter C7 – Business Readiness
SP Energy Networks Business Plan 2015-2023	Chapter C8 – Risk and Uncertainty
SP Energy Networks Business Plan 2015-2023 Annexes	Annex C5 – Customer Satisfaction Strategy – SPEN
SP Energy Networks Business Plan 2015-2023 Annexes	Annex C6 – Expenditure Supplementary Annex – SPEN
SP Energy Networks Business Plan 2015-2023 Annexes	Annex C7 – Smart Grid Strategy - Creating a Network for the Future – SPEN
SP Energy Networks Business Plan 2015-2023 Annexes	Annex C8 – Risk and Uncertainty – SPEN

3. Introduction

This annex summarises SP Energy Networks' long term strategy. We have developed our plans for the RIIO-ED1 period with a long term perspective of subsequent price control periods and balancing this against the shorter term requirements.

The scale of our business combined with the fact that our assets are long term investments mean that our business planning process must consider long term effects. We consider likely future developments that may have an impact on our business and where necessary we take early action to prepare. Our objective is to ensure we meet stakeholders' changing requirements in time and that we strike a balance between cost effectiveness and early intervention without unduly increasing the risk of stranded assets. Historically investment patterns have varied and we have considered how we can smooth these investment patterns out when assets require to be replaced to minimise the impact on customers' bills.

4. Our strategy

4.1. Our approach

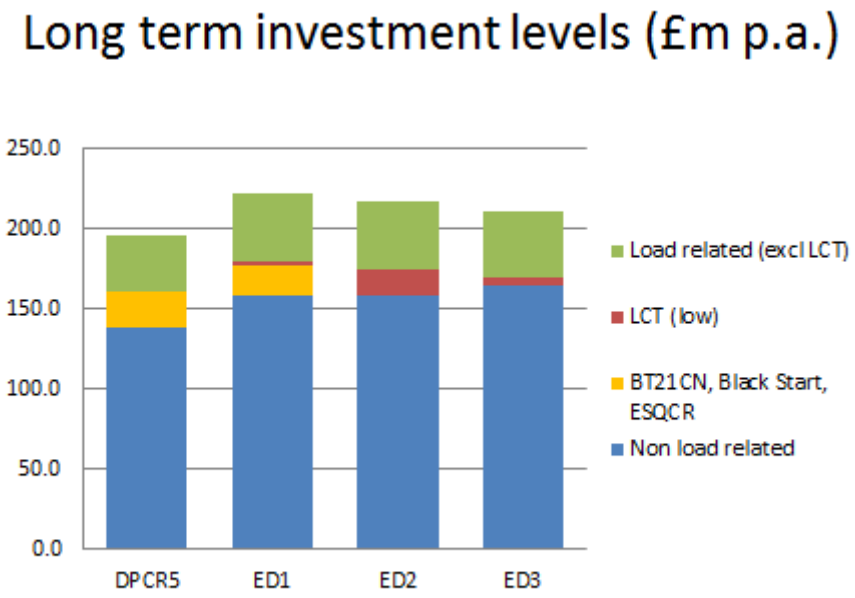
Our strategic vision is based around three elements – Serving our Customer, Managing our Assets and Our People. Our thinking about the long term, beyond RIIO-ED1, is structured in the same way. In each area we have considered the likely future developments and trends and, where appropriate, we have put in place investments or initiatives within our RIIO-ED1 plan.

The key themes of our long term strategy are:

- *Maintain our commitment to health, safety and environment*
- *Prudently develop our networks to meet the needs of future customers, e.g. be "smart ready" and storm resilient*
- *Keep downward pressure on customers' bills through more efficient solutions, e.g. asset life extension and innovative alternatives to investment*
- *Proactively support targeted innovations to help develop future solutions*
- *Start early to develop recruitment and resourcing pathways to deliver the significant challenges of the future workforce*

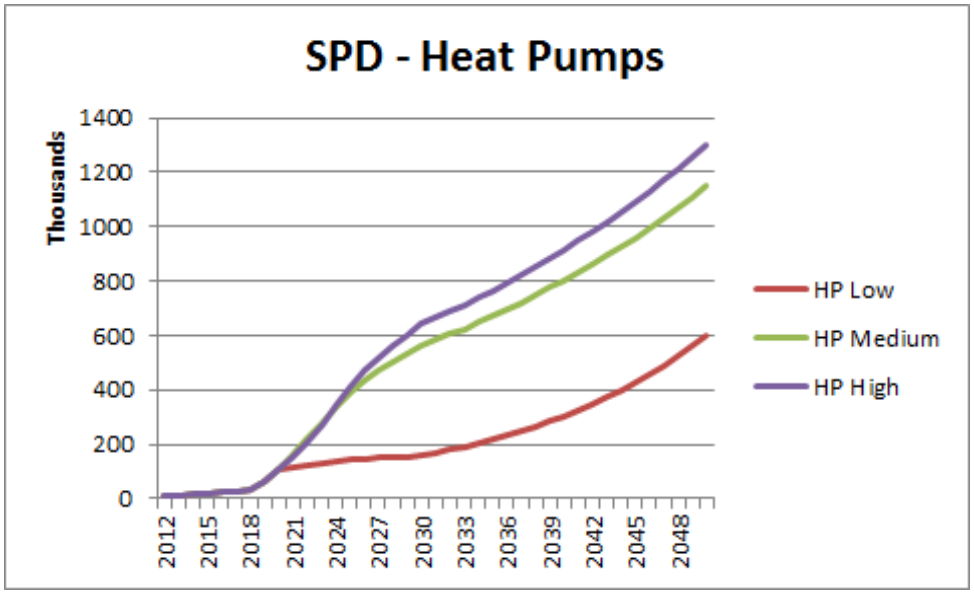
We have used the input of our stakeholders to inform the long term strategy. For example, our stakeholders strongly supported initiatives to improve the resilience of networks to storm events and were also supportive of our pro-active stance on innovation. We are mindful of the impact of investment on customers' bills and, therefore, we consider investments across multiple price control periods.

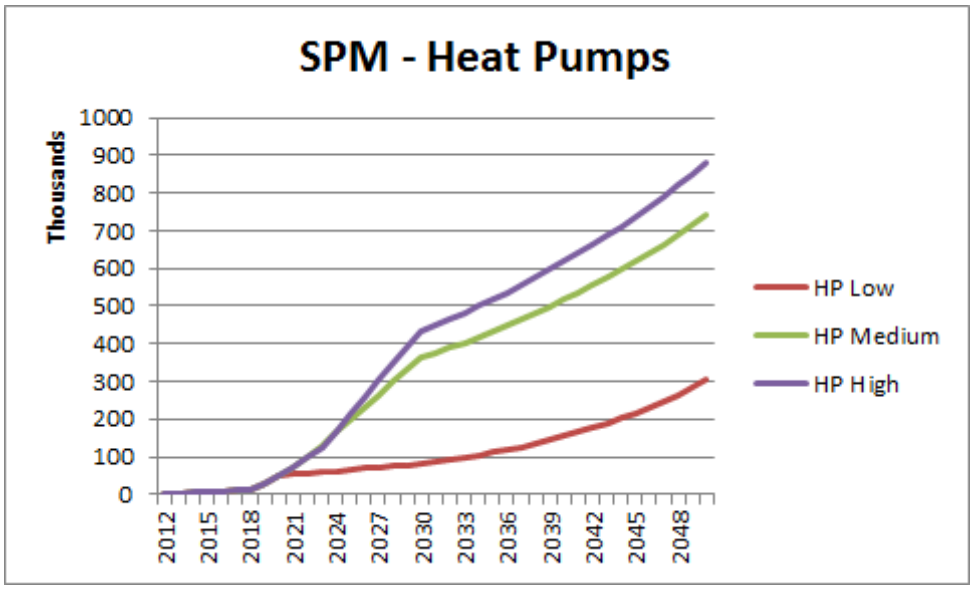
Our forecast of investment over several price control periods is as follows:



Since our July 2013 plan submission we have reprofiled a small number of our investments. Our programme to uprate our legacy 6.6kV networks has been spread across ED1 and ED2, as has our substation remote terminal unit (RTU) replacement programme. However, the overall position reflected in the above chart is one of sustained investment over many years and limited scope to advance or delay our investment programmes.

We believe that investment to accomodate LCT is likely to peak in ED2. This is a key uncertainty for our plans at the end of RIIO-ED1 and into RIIO-ED2. We have used nationally agreed long term scenarios to model the uptake of low cabon technology but, as can be seen from the projections of heat pumps, the potential outcomes lie within a broad range. We will, therefore, regularly review the uptake of LCT and the associated network investments.





4.2. Serving Our customers

Our long term strategy takes account of the following likely outcomes:

- *An ageing population demographic with increasing numbers of vulnerable customers;*
- *Increasing uptake of Low Carbon Technologies to be accommodated, ramping significantly in ED2. The rate of uptake is uncertain so will require good network visibility and flexibility in processes to respond at the appropriate time and to minimise the risks of stranded assets;*
- *Rapidly changing and volatile network loadings due to new generation and demands;*
- *Higher penetration of renewable generation, particularly wind farms, in SPEN license areas accompanied by customer pressure to minimise the curtailment of renewable generation output; and*
- *Evolution of the current DNO role to provide Distribution System Operator function requiring different relationships with our customers as we proactively manage demand and generation.*

We are responding in the following ways:

Investment	Implementing a range of leading indicators to monitor customer related trends to inform and confirm our understanding of future demand scenarios to inform our planning process. Continuing to invest in monitoring and enabling technology to ensure that we can identify network loading problems as early as possible. Considering the longer term requirements of the assets we install in ED1, including futureproofing measures where possible to enable retrofitting of smart technology. Enhancing our information systems to be capable of processing and analysing increasing volumes of network and smart meter data to help improve our planning processes and the customer experience
Skills/ Resources	Extending multi-skilling by training the workforce to manage a broad range of new and traditional technologies. Increasing the commercial skills within our business to offer customers new commercial arrangements that complement conventional technical approaches. Enhancing the processes and resources that support vulnerable customers, particularly during emergencies.
Innovation Priorities	Dedicating innovation resources working closely with network planners to develop solutions that facilitate the cost-effective connection of increasing volumes of LCTs by customers Supporting innovations that will help manage the network challenges arising from higher loadings, for example, DSR to mitigate short term overloads. Evaluating alternative network architectures and configurations, including, for example, direct current (DC) distribution systems and detailed reassessment of the SPM network design.

4.3. Managing our Assets

Our long term strategy takes account of the following likely outcomes

- *Increasing requirement to manage asset degradation arising from ageing of our asset bases;*
- *Higher expectations for network reliability and availability as customers become more dependent on electricity for heating and transport;*
- *Continued downward pressure on customer bills;*
- *Increasing frequency of extreme weather events and the consequent need to make the networks more storm resilient;*
- *Availability of increasing amounts of smart metering and network data (end ED1/ ED2); and*
- *More stringent environmental requirements.*

We are responding in the following ways:

Investment	Deploying more asset life extension through refurbishment as an alternative to replacement Rationalising legacy network issues, for example uprating our 6.6kV networks to 11kV Developing enhanced resilience to natural (storms, floods) and man-made events (cyber security) Increasing standardisation of assets within the Iberdrola Group and broadening the supply chain to increase competition between our suppliers and enlarge delivery capacity Implementing stringent energy loss reduction, oil and SF6 leakage requirements in our specifications
Skills/ Resources	Retaining core delivery capability in-house which will be supplemented by contractor resources to meet peak periods of workload Levering the benefits of access to resources and knowledge across an international group (for example, on smart meter deployment) Strongly supporting learning and implementing best practice from external sources or from within the Iberdrola
Innovation Priorities	Developing enhanced condition monitoring and network automation Integrating data management and analysis tools for large data sets into existing and new corporate systems (e.g. smart meter data for enhanced network planning processes and quantification of losses) Developing new approaches to maximise asset lives and defer asset replacement

4.4. Our People

Our long term strategy takes account of the following likely outcomes

- *A significant proportion of our staff leaving the company in the ED1 period due to retirement;*
- *Changing skills requirements as a result of a higher reliance on ICT and new technologies; and*
- *The higher consequential risk of embedded knowledge and experience leaving the business.*

We are responding in the following ways:

Investment	Continuing to invest in our own training facilities to ensure the continuation of high quality development of staff and contractors Developing specific college courses aligned to our needs – and recruiting through colleges local to the communities we serve Continuing investment in all staff/contractor learning & development
Skills/ Resources	Implementing a coordinated workforce renewal programme Supporting the National Skills Academy for Power Enhancing our recruitment pipeline through initiatives and links with schools/colleges/universities Widening recruitment to tap into all markets – local and international
Innovation Priorities	Reinforcing our innovation culture through ongoing refresh of workforce

5. Process

Our long term strategy is developed and owned by the SP Energy Networks Executive team. The Long term strategy is informed by our stakeholders, internal to Iberdrola and external. Our strategy also considers legislative changes which may impact how we operate in the longer term.