



A22 - NGN RII0-2

Business Support Benchmarking

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the network**



Review of Business Support Costs



A draft report prepared for Northern Gas Networks Limited by KPMG LLP

December 2019

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Margaret-Mary Ling
Northern Gas Networks Limited
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3 December 2019

Dear Margaret-Mary,

Review of Business Support Costs

In accordance with our Engagement Letter dated 17 October 2019, we have performed the work agreed with you and set out in this report.

Our report has been prepared for Northern Gas Networks Limited ("NGN") to assist the Directors in their evaluation of the costs of their Business Support Functions.

This report has been produced by KPMG LLP for use by Northern Gas Networks Limited. KPMG LLP ("KPMG") consents to the disclosure of the Report to Ofgem, the RIIO-2 Challenge Group and its publication on conditions explained in our Engagement Letter. This report is not a statutory audit report and it does not provide an opinion on NGN's financial statements or business plan submissions to Ofgem.

Our report was designed to meet the requirements agreed with NGN. Our report should not therefore be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than NGN for any purpose or in any context. Any party other than NGN who obtains access to our report or a copy and chooses to rely on our report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, KPMG LLP will accept no responsibility or liability in respect of our report to any other party.

Our findings are summarised on pages six and seven. NGN management should consider these findings and decide on an appropriate course of action.

Yours sincerely,

Duncan Michie
Director, KPMG

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Limitations

Basis of preparation

This report has been produced in accordance with our engagement letter dated 17 October 2019.

Data Source

This report uses data from the following sources:

- NGN's draft RIIO GD2 Business Plan Data file ('NGN RIIO-GD2 BPDT.xlsx') provided to KPMG on 18 November 2019.
- Supporting data ('Copy of Data Request for NGN v.1.xlsx') provided to KPMG on 23 October 2019.
- Data on training and apprentices ('Final RIIO-GD2 TA.xlsx') provided on 15 November 2019.
- Additional HR information provided via two emails from the Head of RIIO GD2 on 3 December 2019.
- Additional finance information provided via email from the Head of RIIO GD2 on 3 December 2019.
- Additional finance information provided via email from the Head of Commercial Finance on 11 November 2019.
- Additional procurement information provided via email from the Head of Commercial Finance on 2 December 2019.

Findings arising from this work may not be applicable if NGN makes amendments to this data. This report does not provide an opinion on the business plan data tables or other data.

Nature of analysis

This review considers the costs of various Business Support functions within NGN, operational efficiency has not been assessed in this report and no root cause analysis has been conducted.

Restrictions on distribution

This draft report has been produced by KPMG LLP for use by Northern Gas Networks Limited, it relates to work and reviews conducted up to 3 December 2019, this included the implementation of the following interviews:

- Interviews with the IT Director, Commercial Director (Property management and Procurement) and Regional Lead (Training and Apprentices) on 9 October 2019.
- Interviews with the Finance Director, Legal Director and Regulation Director on 10 October 2019.
- Interview with the Head of RIIO GD2 and Head of Commercial Finance on 18 November 2019.



Executive Summary – Overview and Approach

Overview

Northern Gas Networks, as a gas distribution network supplying 2.7 million homes and businesses, is an essential business that requires expenditure on business support functions to ensure the smooth running of its activities and provision of a high quality of service to its customers. These business support functions include: IT and telecommunications; property management; training; insurance; procurement; HR; finance, audit and regulation; procurement; CEO office and stores and logistics.

NGN is at a critical juncture in its business as it works towards submitting its final Business Plan for the RIIO-2 regulatory period (2021-2026) to Ofgem in December this year. Ofgem is placing significant emphasis on evidence and benchmarking, setting out that Business Plans must include:

- A clear explanation of the key drivers of expenditure.
- Evidence of the efficiency of costs, for example as compared to historical benchmarks and/or benchmarking with national and international comparators.
- Robust and transparent justification for the extent to which regional and company-specific factors determine material (higher or lower) cost variations.

Only costs that Ofgem determines to be **necessary** and **efficient** will be allowed to be recovered from customers through network charges. Ofgem will set funding allowances through benchmarking across peers and potentially against comparators outside of the sector.

Given the above it is important for NGN to evidence the efficiency of its costs through benchmarking and comparator analysis and to provide robust justification for any variations in costs when compared to comparators.

In this context, Northern Gas Networks has asked KPMG to support them in carrying out an independent review of its business support costs.

Scope

KPMG reviewed the following business support functions:



Approach

KPMG's work comprised the following activities:

- **Initial review of NGN cost data** – KPMG reviewed NGN's draft RIIO GD2 Business Plan Data Template file ('NGN RIIO-GD2 B PDT.xlsx', provided to KPMG on 18 November 2019). The costs associated with each of the above functions were considered as part of this process.
- **Internal stakeholder meetings** – Internal stakeholder meetings were held on 9 and 10 October 2019; detailed discussions were held on the nature and composition of costs within each of the above functions.
- **Identification and characterisation of potential comparators** – Following development of a full understanding of each cost function, KPMG compiled a sample of suitable benchmarks and comparators (a total of 31 benchmarks were identified). As part of this process KPMG identified additional data that was required from NGN, this additional cost data was provided between 23 October 2019 and 3 December 2019.
- **Benchmarking analysis** - Comparing NGN's costs against identified benchmarks, results are summarised on the following slide and in more detail in Section 3.

Executive Summary – Performance Against KPIs

Performance Against KPIs

KPMG identified 31 representative KPIs suitable for this review, these are summarised in Figure 1.

NGN scored in the upper or second quartile in 22 KPIs, which represent nearly £8m in costs. This includes:

- Scoring in the top quartile (i.e. in the top 25%) in seven of the 31 KPIs identified; and
- Scoring above the median or in the second quartile (between the 25th and 50th) centiles in 15 KPIs.

In addition, NGN scored:

- In the third quartile (between the 25th and 50th) centiles in four KPIs (other than HR, these all represent sub-processes in an overall efficient function).
- In the lower quartile in five KPIs (in two cases these represent sub-processes in an overall efficient function).

Figure 1 – Summary of the 31 benchmarks identified alongside NGN's performance against those KPIs

Cost Group	KPI	NGN Score	Annual GD2 cost (£m)	Key
Human Resources	Total cost to perform the HR function per \$1000 revenue		0.92	Median or above
	Total cost to perform the HR function per business entity employee			Upper quartile
	Total cost to perform the process group "process payroll" per \$1000 revenue		0.19	Second quartile
	Total cost to perform the process group "process payroll" per employee paid			Third quartile
	Total cost to perform the process group "recruit source and select employees" per \$1000 revenue		0.23	Below median
	Total cost to perform the process group "recruit source and select employees" per new hire			Lower quartile
	Total cost to perform the process group "reward and retain employees" per \$1000 revenue		0.19	
Training	Learning budget per apprentice		0.56	
	Internal cost to perform learning administration activities per apprentice		0.21	
Procurement	Total cost to perform the process group "procure materials and services" as a percentage of revenue		1.97	
	Total cost to perform the process "select suppliers and develop/maintain contracts" per \$1000 revenue		0.94	
	Total cost to perform the process "order materials and services" per \$1000 revenue		0.23	
	Total cost to perform the process "order materials and services" per purchase order			
	Total cost to perform the process "manage suppliers" per \$1000 revenue			
Stores and Logistics	Outsourced cost to perform the process "operate outbound transportation" per \$1000 revenue		0.19	
	Outsourced cost to perform the process "operate warehousing" per \$1000 revenue		0.31	
	Outsourced cost to perform the process "plan and manage inbound material flow" per \$1000 revenue		0.25	
Finance, audit and regulation	Total cost to perform the finance function per \$1000 revenue		2.63	
	Total cost to perform the finance function per finance function FTE			
	Total cost to perform the process "process accounts payable (AP)" per \$1000 revenue		0.09	
	Total cost to perform the process "process accounts payable (AP)" per disbursement/payment			
	Total cost to perform the process "process accounts receivable (AR)" per customer receipt		0.03	
	Total cost to perform the process "perform financial reporting" per process FTE		0.66	
	Total cost to perform the process "perform planning/budgeting/forecasting" per \$1000 revenue		0.24	
	Total cost to perform the process "evaluate and manage financial performance" per \$1000 revenue		0.28	
	Total cost to perform the processes "perform cost accounting and control" and "perform cost management" per \$1000 revenue		0.40	
Property	Total cost to perform the process group "manage internal controls" as a percentage of revenue		0.40	
	Average office rental cost versus equivalent average 'achievable open market rent'		1.4	
CEO Office	Average yard/depot rental cost versus equivalent average 'achievable open market rent'			
	Communications and Stakeholder Engagement budget as a percentage of revenue		0.5	
IT	Total IT cost excluding depreciation/amortization per \$1000 revenue		20.9	

Executive Summary – Key Findings

NGN scored in the upper or second quartile in 22 of 31 KPIs, which represent nearly £8m in costs. This includes strong performance in Finance Functions (representing £2.6m), Procurement (representing £2m) and property (£1.4m). KPMG identified four cost areas where NGN is performing in the third or bottom quartile and where average annual GD2 costs are over £500k, these are:

- **Total IT cost (excluding depreciation/amortization per \$1000 revenue)** – this scored in the bottom quartile and represents £20.9m per year (capex and opex combined).
- **Total cost to "select suppliers and develop/maintain contracts"** – this scored in the third quartile and represents £940k per year in GD2.
- **Total cost to perform the HR function (per employee and per \$1000 of revenue)** - both benchmarks scored in the third quartile and represent costs of £919k per year over the RIIO-GD2 period.
- **Learning budget per apprentice** – this scored in the bottom quartile and relates to nearly £555k per year in GD2.

Broadly speaking, these areas tend represent functions where NGN is actively investing in order to capture operational savings in other areas of the business and/or where, as a smaller GDN, NGN are unable to capture the economies of scale of larger utilities.

Total IT cost excluding depreciation/amortization per \$1000 revenue ***£20.9m per year (includes capex and opex)***

Overall NGN is continuing to invest heavily in its IT systems bringing them up-to-date and increasing security with the expectation that it will convey significant operational improvements and reduced operational risk. The significant level of investment is reflected in the benchmark score.

Furthermore, there are aspects of NGN's business that lead to increased complexity and higher cost drivers compared to other utilities, including:

- the communications systems and equipment needed to support a field based workforce; and
- the need to operate and maintain a large and complex asset base comprising thousands of assets (including some Critical National Infrastructure) this includes associated security requirements and the maintenance and operation of control centres.

It should also be noted that, compared to others in its comparator group of utilities, NGN is expected to have disproportionately lower revenue on the grounds that it is an asset-based business (investing in and maintaining assets and recovering costs over decades) with a relatively small workforce.

Total cost to "select suppliers and develop/maintain contracts" ***£940k per year***

This represents a more costly process in a function that otherwise performs in the upper quartile. Higher than average costs in this area represent a high focus within the team on managing Direct Service Providers (DSPs), renegotiation of contracts and running tender events. This includes the fact that, as part of its replex programme, the procurement team is currently managing 30 DSPs including weekly organisation of jobs including negotiation/agreement of prices and managing associated payments.

NGN state that this strategy is helping capture cost savings in other areas of NGN's business.

Total cost to "perform the HR function" ***£860k per year***

When considering specific activities within HR (such as recruitment, rewarding and retaining employees and payroll) NGN is found to score in the second quartile. This may be a representation of NGN's recent strategy to retain specialists which help them capture efficiencies and cost savings within these specialist areas.

When considering HR costs as a whole NGN is less efficient, this is likely to represent a combination of factors, including:

- NGN's enduring rationalisation strategy as it seeks to build further resilience into the company. NGN state that HR oversight and management will need to be maintained during this process and beyond as it seeks to manage the ongoing retention/recruitment challenges of a younger and more resilient workforce, including the need to maintain the right HR specialists within the company.
- Difficulties in being able to capture economies of scale that are available to HR departments of larger organisations within the sector.
- Potentially experiencing disproportionately higher costs than utilities in general on the grounds that their HR function is required to deal with a geographically disparate workforce which undergoes a high proportion of field activities (and therefore field-related HR issues), this includes interacting with two unions.

Learning budget (apprentices) ***£555k per year***

Higher than average costs in this area (relative to other utilities) are likely to represent the fact that, as a GDN, NGN have a responsibility (and licence requirements) to develop, train and maintain a workforce of qualified specialists. HSE-driven competency standards may be expected to be less demanding for other utilities such as suppliers and water companies, for this reason, a like-for-like comparison against other GDN's (performance through RIIO-1 and into RIIO-2) may be a more suitable comparator in this instance (rather than a utilities sector view).

Significant variation between GDN's would still be expected depending on a given network's changing strategy through time, for example, NGN's move from adult recruitment in RIIO-1 to more apprentice-focused recruitment in RIIO-2. Further to this, NGN may experience higher costs in this area as a result of its 'totex' training approach where the business is endeavouring to broaden the skillsets and qualifications of individuals in order to empower staff and build flexibility and resilience within its direct labour force and to capture operational savings across the business.

Costs in this area have also been driven by NGN's workforce refresh which has led to an increase in training requirements (to make up for any losses in experienced individuals) and increased long-term apprenticeship programs (further representing NGN's drive towards resilience and an improved customer service/experience). NGN has also reiterated its emphasis on the quality and robustness of the training programmes that it provides for its staff, this is also likely to have associated costs with the derived benefit of a better skilled/experienced work force.

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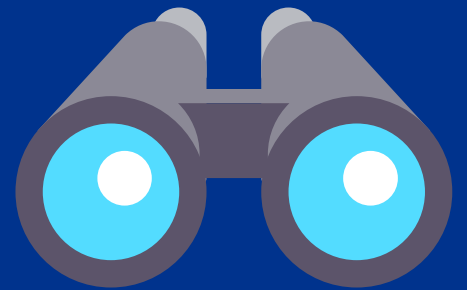
3

Cost efficiency
analysis





1. Overview and approach



Overview and approach

Scope

KPMG reviewed the following business support functions:



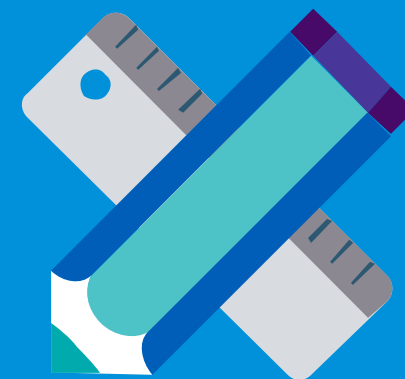
Approach

KPMG's work comprised the following:

- **Initial review of NGN cost data** – KPMG reviewed NGN's draft RIIO GD2 Business Plan Data Template file (NGN RIIO-GD2 BPDT.xlsx, provided to KPMG on 18 November 2019). The costs associated with each of the functions on the left were considered as part of this process.
- **Internal stakeholder meetings** – Internal stakeholder meetings were held on 9 and 10 October 2019; detailed discussions were held on the nature and composition of costs within each of the above functions.
- **Identification and characterisation of potential comparators** – Following development of a full understanding of each cost function, KPMG compiled a sample of suitable benchmarks and comparators (a total of 31 benchmarks were identified). As part of this process KPMG identified additional data that was required from NGN, this additional cost data was provided between 23 October 2019 and 3 December 2019.
- **Benchmarking analysis** - Comparing NGN's costs against identified benchmarks, results are summarised on the following slide and in more detail in Section 3.



2. Identification of suitable KPIs and comparators



Identification of suitable comparators - sources

Following the allocation of cost groups, KPMG conducted a search for representative KPIs that could be used to make comparisons within these cost groups. A total of 31 KPIs were identified, these are summarised in Figure 3 on the following slide. Our primary source for this data was the proprietary APQC (American Productivity & Quality Centre) database.

The APQC Database

- The APQC compiles global data through proprietary research, surveys and industry leading sources and its data is underwritten by its member organisations.
- They are a world leader in international business KPIs, benchmarking and best-practices research and maintain one of the largest databases of performance metrics in the world.
- The APQC database holds over 700 KPIs, over 600,000 data points and 17 industries.
- The KPIs provided by APQC are comprehensive, up-to-date and cover costs, people (FTEs) and process efficiency metrics for stand alone functions and sub-processes such as: IT, Finance, HR, Procurement etc.
- The data licensed from APQC is provided in an anonymised format (i.e. individual reports, surveys and names of companies are not disclosed). Data is primarily classified by industry/sector, by region and by revenue size.
- KPIs are integrated with KPMG reference models and are aligned with standardised and industry-leading process definitions/taxonomies.

Property benchmarking

KPMG benchmarked NGN rental costs against “achievable open market rents” as reported by Colliers International in their “National Office Rents Map 2019” and “Industrial and Logistics Rents Maps H2 2019” online reports¹. At the time of writing this report NGN has provided KPMG with rental data for 15 of their properties (five offices and ten depots/yards). KPMG calculated an average price from this data and compared this against an expected average price according to “achievable open market rents” reported near the locations of their properties.

1. <https://www.colliers.com/en-gb/uk/insights/offices-rents-map>

Figure 2 – APQC Benchmarking Categories



Identification of suitable comparators - KPIs

Figure 3 – Summary of KPIs identified

Cost Group	KPI	Unit	Source
Human Resources	Total cost to perform the HR function per \$1000 revenue	£	APQC
	Total cost to perform the HR function per business entity employee	£	APQC
	Total cost to perform the process group "process payroll" per \$1000 revenue	£	APQC
	Total cost to perform the process group "process payroll" per employee paid	£	APQC
	Total cost to perform the process group "recruit source and select employees" per \$1000 revenue	£	APQC
	Total cost to perform the process group "recruit source and select employees" per new hire	£	APQC
	Total cost to perform the process group "reward and retain employees" per \$1000 revenue	£	APQC
Training	Learning budget per business entity employee	£	APQC
	Internal cost to perform learning administration activities per business entity employee	£	APQC
Procurement	Total cost to perform the process group "procure materials and services" as a percentage of revenue	%	APQC
	Total cost to perform the process "select suppliers and develop/maintain contracts" per \$1000 revenue	£	APQC
	Total cost to perform the process "order materials and services" per \$1000 revenue	£	APQC
	Total cost to perform the process "order materials and services" per purchase order	£	APQC
	Total cost to perform the process "manage suppliers" per \$1000 revenue	£	APQC
Stores and Logistics	Outsourced cost to perform the process "operate outbound transportation" per \$1000 revenue	£	APQC
	Outsourced cost to perform the process "operate warehousing" per \$1000 revenue	£	APQC
	Outsourced cost to perform the process "plan and manage inbound material flow" per \$1000 revenue	£	APQC
Finance, audit and regulation	Total cost to perform the finance function per \$1000 revenue	£	APQC
	Total cost to perform the finance function per finance function FTE	£	APQC
	Total cost to perform the process "process accounts payable (AP)" per \$1000 revenue	£	APQC
	Total cost to perform the process "process accounts payable (AP)" per disbursement/payment	£	APQC
	Total cost to perform the process "process accounts receivable (AR)" per customer receipt	£	APQC
	Total cost to perform the process "perform financial reporting" per process FTE	£	APQC
	Total cost to perform the process "perform planning/budgeting/forecasting" per \$1000 revenue	£	APQC
	Total cost to perform the process "evaluate and manage financial performance" per \$1000 revenue	£	APQC
	Total cost to perform the processes "perform cost accounting and control" and "perform cost management" per \$1000 revenue	£	APQC
	Total cost to perform the process group "manage internal controls" as a percentage of revenue	%	APQC
Property	Average office rental cost versus equivalent average 'achievable open market rent'	£/m ²	Colliers
	Average yard/depot rental cost versus equivalent average 'achievable open market rent'	£/m ²	Colliers
CEO Office	Communications and Stakeholder Engagement budget as a percentage of revenue	%	Gartner
IT	Total IT cost excluding depreciation/amortization per \$1000 revenue	£	APQC

All KPIs used in this analysis (except for the two relating to property and one relating to communications) are taken from the Utilities sector and therefore relate to both network businesses and other non-network companies. The three KPIs relating to property and communications are not sector specific.

The APQC reports its data in US dollars, an exchange rate of £0.77 to the US dollar was assumed throughout this analysis.



3. KPI analysis

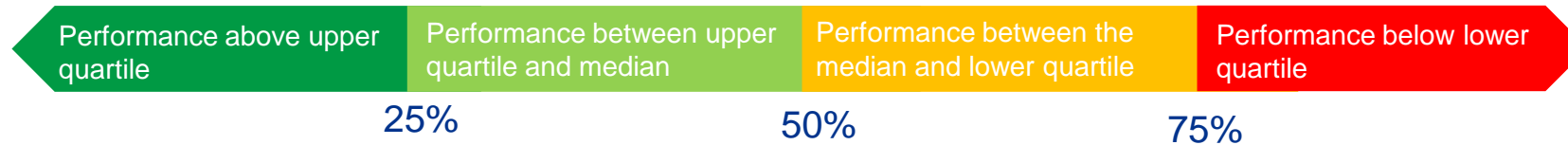


KPI analysis

To gain an insight into NGN's performance against the 31 KPIs identified, NGN was rated against a RAG system. In the following slides the blue diamond (◆) represents NGN's performance within the performance range. Two different approaches were used depending on the source of the benchmarking data.

KPIs from APQC

Values better than the Upper Quartile (25th centile) were rated dark green, values between the upper quartile and the median were rated light green, values between the median and the lower quartile were rated amber, and values less efficient than the the lower quartile (75th centile) were rated red.

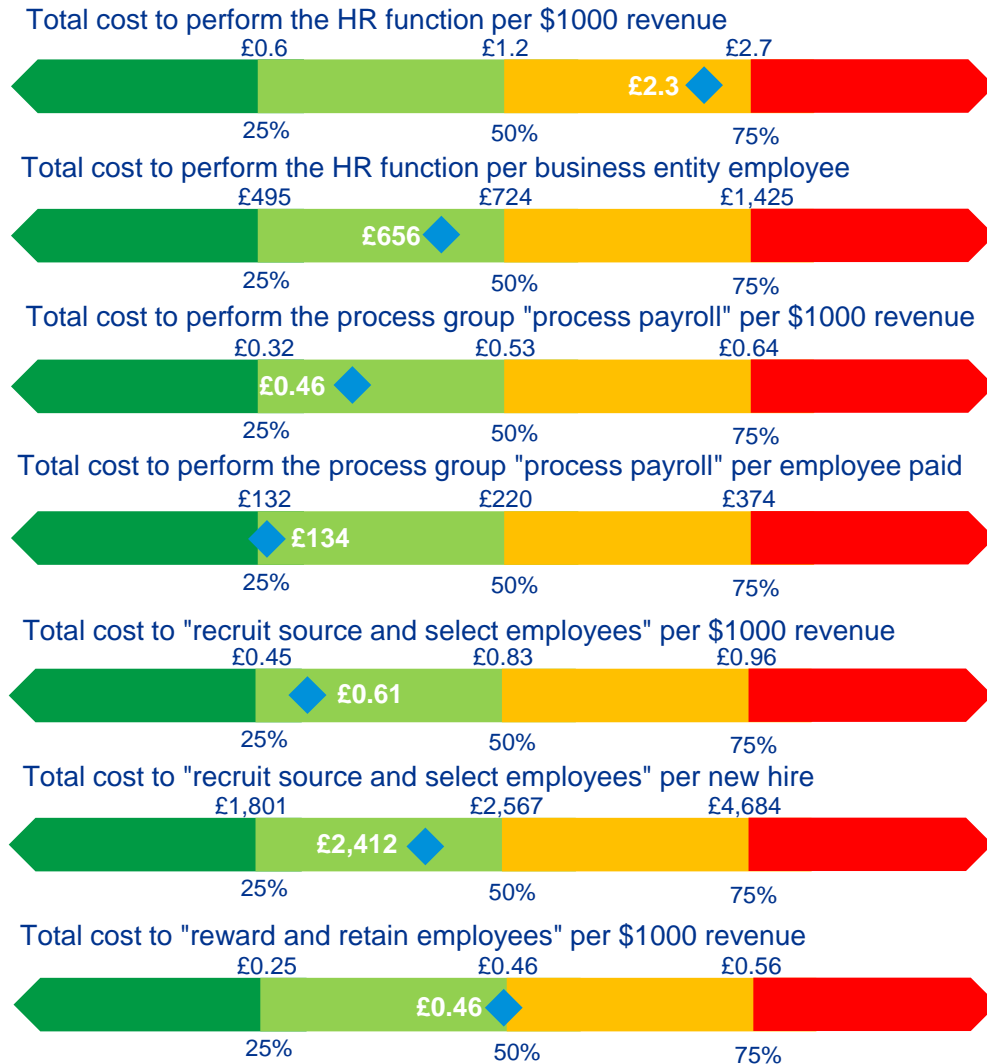


KPIs from Gartner (communications costs) and Colliers (property costs)

Gartner and Colliers do not provide their data at quartile granularity, in this context, KPMG has presented NGN's performance against a median value. In relation to property KPIs from Colliers, KPMG have assumed that 'achievable open market rent' as reported by Colliers is the median.



Human Resources



Human Resources (continued)

Overview of department

The function comprises 11 staff including one HR Director, two HR Business Partners, one employee responsible for 'reward and recognition', one employee responsible for recruitment and retention and four administrative staff. In addition to this, the HR function also holds two staff responsible for payroll.

Characterisation of costs

The key cost driver for this function is salary cost of HR staff, and NGN do not expect significant variations in the number/composition of HR staff over the RIIO-GD2 period in the coming years. This represents the fact that NGN expects workload and HR demand to remain broadly flat over this time period.

Historically, however, NGN has seen an increase in HR function costs since 2013/14 (where total costs were £726k) to a peak of £1.2m in 2018/19, this broadly maps against an increased need for HR oversight and an increased deployment of HR FTEs over this time period. The increase in FTEs and costs over the GD1 period is largely a result of an ongoing rationalisation strategy being deployed across the organisation across this time period, this included a refresh/update of employee contracts and the implementation of a voluntary severance programme. NGN's rationalisation strategy has been successful in:

- Reducing the average age of the workforce from over 50 to under 40 (staff turnover increased to 12% in RIIO-1, 4% of which was directly linked to voluntary redundancy schemes).
- Reducing the number of staff on older contracts with associated final salary pension schemes (this is expected to be less than 10% of the workforce in RIIO-2).

This rationalisation strategy will continue into GD2 as NGN seeks to build further resilience into the company by reducing the average age of the workforce and by continuing the updating of contracts. NGN expects these costs to be enduring because HR oversight and management will need to be maintained to manage the ongoing retention and recruitment challenges of a younger and more resilient workforce, including the need to maintain the right HR specialists to manage employee benefits, employee advice and diversity and equality initiatives. In this regard NGN state that a key area of risk management in HR budgets is ensuring the retention of experienced HR staff. NGN have conducted salary benchmarking for key/specialist HR staff to ensure salaries are in line with market levels (some increases in cost are therefore a result of the application of various salary increases in response to salary benchmarking analyses).

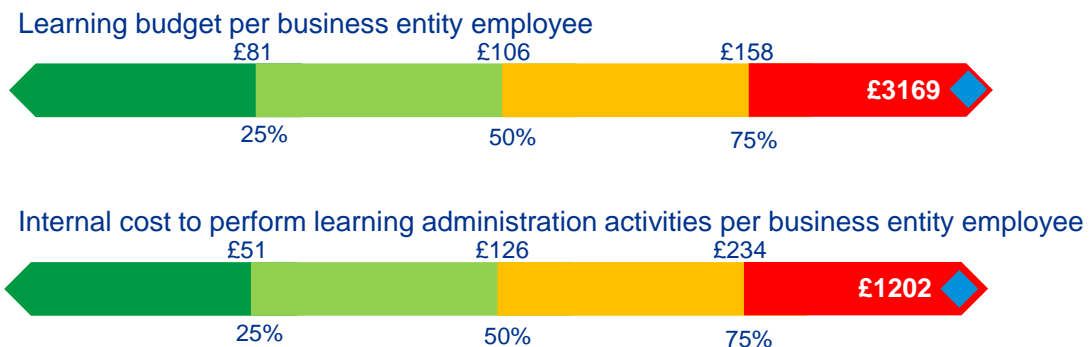
Performance against KPIs

Overall NGN scores in the third quartile when considering HR costs as a whole, this is likely to represent a combination of factors, including:

- NGN's enduring rationalisation strategy as it seeks to build further resilience into the company. NGN state that HR oversight and management will need to be maintained during this process and beyond as it seeks to manage the ongoing retention/recruitment challenges of a younger and more resilient workforce, including the need to maintain the right HR specialists within the company.
- Difficulties in being able to capture economies of scale that are available to HR departments of larger organisations within the sector.
- Potentially experiencing disproportionately higher costs than utilities in general on the grounds that their HR function is required to deal with a geographically disparate workforce which undergoes a high proportion of field activities (and therefore field-related HR issues), this includes interacting with two unions.

When considering specific activities within HR (such as recruitment, rewarding and retaining employees and payroll) NGN scores in the second quartile. This may be a representation of NGN's recent strategy to retain specialists which help them capture efficiencies and cost savings within these specialist areas.

Training



Overview of department

NGN runs training, apprenticeship and qualification programs for engineers, craftspeople as well as graduates/new joiners, office staff and management. Training programs include:

- 'New Starter – Operational Response' – Individuals are recruited with a prerequisite set of qualifications. Over the course of a few years employees are trained (and re-trained) in: cable avoidance, gas detection, driving, fitting, 'service' repairs, 'main line' repairs, disconnecting/connecting meters, emergency response, highways work, fire control and first aid. Training comprises multiple internal and external training courses alongside extensive 'on site' experience and practical assessment to ultimately attain the ACS commercial qualification.
- Apprenticeships – Individuals do not enter the program with specific qualifications, over the course of the multi-year program apprentices are trained in all aspects required for them to receive a commercial ACS qualification. Apprenticeships are a fixed term contract where competency and performance is measured at regular intervals. This includes multiple training courses, on site experience and practical assessments and work-based assignments.
- 'Gas Network Team Leader' – this is an upskilling program that endeavours to develop qualified gas operatives throughout their career (from 'gas operatives' to 'service layers' to 'mains layers').

In addition to the above, the department also oversees all yearly competency assessments and re-registering of qualifications that are required for different specialisations within the business.

NGN states that it focuses on 'looking after' its staff and on providing high quality training and development programs. In this regard they apply a 'totex' model where they endeavour to train staff in a broad range of skills and specialisations. The intention is to provide their employees with a broad and fulfilling skillset, helping to retain staff and also helping to maintain a strong and diverse resource base within the company to deal with unpredictability of future resourcing requirements. NGN also maintains a high level of diligence/selectivity over the training programs that are delivered (both internal and external) they regularly assess the quality of these courses to ensure that their staff are receiving the best possible courses and quality of training (for example, they will audit and assess courses that are producing unexpectedly high pass rates).

Activities undertaken within this department are expected to affect a number of areas within the business, including: quality of work (customer satisfaction), a strong health and safety record, a well-qualified employee base, high retention rates and good employee satisfaction (based on clearly defined and effective career paths and opportunities).

Training (continued)

Characterisation of costs

Costs are predominantly comprised of salaries and expenditures relating to administering and running the training programs themselves (many of which are run by a choice of eight external providers). A key cost driver is therefore the number of employees that NGN chooses to hire and/or train and these costs are, therefore, to some extent controllable by NGN. Training costs for apprentices for GD2 are averaging £569k per year *versus* £136k per year in GD1, the main drivers behind this cost increase are:

- A shift in recruitment/training strategy in response to an industry shift towards customer service/experience and an expectation of high quality delivery from customers; NGN have found that experienced staff are more effective at interfacing with customers and delivering a high quality customer experience.
- A shift towards longer term apprenticeship programs to reduce the average age within the firm and future proof the business.
- Insourcing the 'Pressure Reduction' team (70 people) causing a spike in the amount of training/qualifications needed to be delivered.

There are aspects to NGN's costs in this area that are not controllable, this includes the requirements for specialist staff to have appropriate and current qualifications (including annual or three/five yearly reassessment and requalification). There is limited flexibility in the standards of qualification that must be attained/maintained, this is largely enforced by the Health and Safety Executive (HSE).

Key risks to this department include:

- Regulatory/HSE interventions – increasing/changing training/qualification requirements.
- Closure of training provider and/or failure during an Ofsted inspection.
- Certification bodies losing their certification – thus requiring re-qualification of individuals from other certification bodies.
- Attrition of qualified individuals (including loss to competitors) – thus meaning new individuals need to be developed and trained.

NGN mitigates against these risks and reduces costs through:

- Extensive forward planning, including maintaining a continuous forward look of training/qualification requirements to ensure courses are always fully attended; and maintaining foresight of forthcoming regulatory changes (through membership of various forums etc.).
- Maintaining a 'totex' training model (see previous slide).
- Being strongly selective of training providers.
- Capturing economies of scale by collaborating with GDNs for access to training courses and training materials/systems.

Performance against KPIs

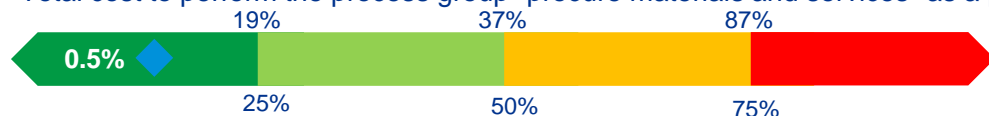
NGN scores in the lower quartile in relation to its learning budget per apprentice and associated administrative costs, this may not be surprising given that, as a GDN, they have a responsibility (and licence requirements) to develop, train and maintain a workforce of qualified specialists. HSE-driven competency standards may be expected to be less demanding for other utilities such as suppliers and water companies, for this reason, a like-for-like comparison against other GDN's (performance through RIIO-1 and into RIIO-2) may be a more suitable comparator in this instance (rather than a utilities sector view).

Significant variation between GDN's would still be expected depending on a given network's changing strategy through time, for example, NGN's move from adult recruitment in RIIO-1 to more apprentice-focused recruitment in RIIO-2. Further to this, NGN may experience higher costs in this area as a result of its 'totex' training approach where the business is endeavouring to broaden the skillsets and qualifications of individuals in order to build flexibility and resilience within its direct labour force and to capture operational savings across the business. An example of the totex approach is upskilling various field teams with 'purge and relight' capability, the output of this programme is intended to be a significant reduction in purge and relight times because separate specialist purge and relight teams will no longer need to be called out and waited for.

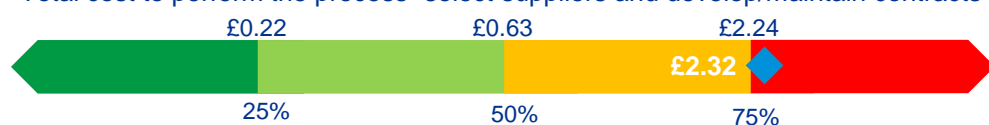
Costs in this area have also been driven by NGN's workforce refresh which has led to an increase in training requirements (to make up for any losses in experienced individuals) and increased long-term apprenticeship programs (further representing NGN's drive towards resilience and an improved customer service/experience).

Procurement

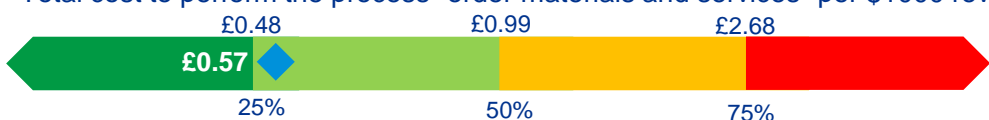
Total cost to perform the process group "procure materials and services" as a percentage of revenue



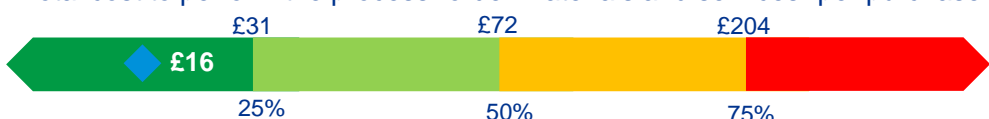
Total cost to perform the process "select suppliers and develop/maintain contracts" per \$1000 revenue



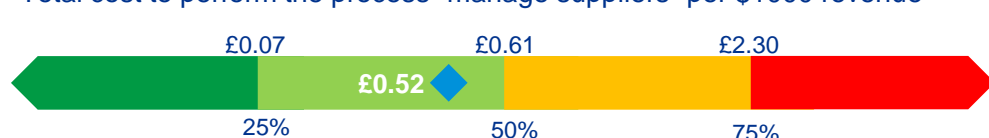
Total cost to perform the process "order materials and services" per \$1000 revenue



Total cost to perform the process "order materials and services" per purchase order



Total cost to perform the process "manage suppliers" per \$1000 revenue



Performance against KPIs

NGN scores in the upper or second quartiles in all but one KPI within this cost group, this is expected to reflect the fact that they have undergone significant consolidation and rationalisation within this department including a reduction in FTEs, leveraging economies of scale and implementing IT solutions.

NGN scores in the lower quartile for one KPI ("Total cost to perform the process "select suppliers and develop/maintain contracts") this represents a high focus within the team on managing Direct Service Providers (DSPs), renegotiation of contracts and running tender events. This includes the fact that, as part of its repex programme, the procurement team is currently managing 30 DSPs including weekly organisation of jobs including negotiation/agreement of prices and managing associated payments.

NGN state that this strategy is helping capture cost savings in other areas of NGN's business.

Overview of department

The Procurement team comprises 13 individuals (head of department, four procurement managers, four procurement officers, two 'plant hires' and two supply chain officers). The team aims to save NGN costs through renegotiation of contracts with suppliers and tender events (for network services, corporate services and capital projects).

The team is also responsible for reviewing NGN's insourcing and outsourcing strategies. Through the Direct Service Provider (DSP) framework they are able to 'cycle' their contractors (and/or bring the operation in house) and have achieved cost savings and quality improvements as a result.

Characterisation of costs

Salary costs are the principal expense in this area. Costs in the procurement department are higher in GD1 compared to what is expected in GD2 for the following reasons:

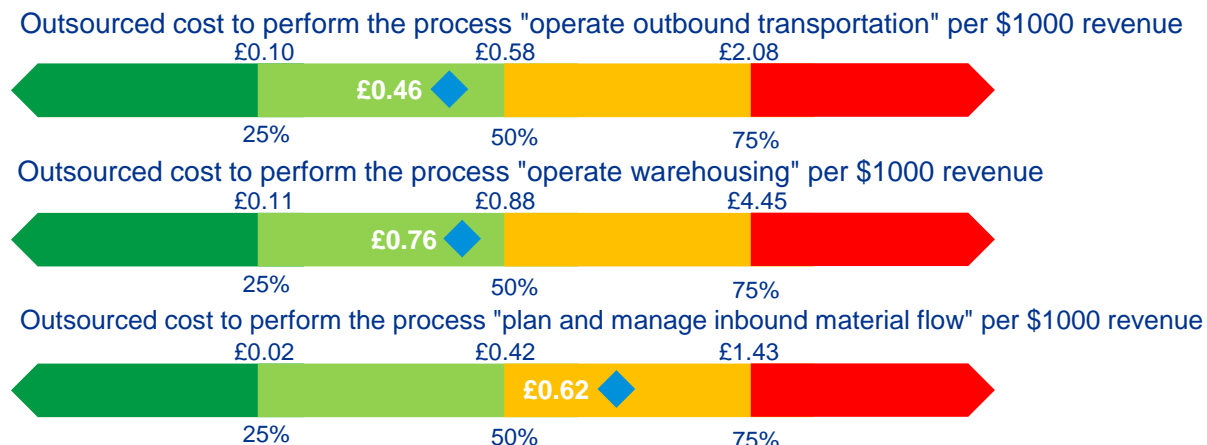
- Re-sizing of the department.
- The end of a trial looking into a fleet of lorries that could deliver from warehouse direct to site.
- Investments in IT (including automation in low value transactional procurement) expecting to bring the head count down.
- Leveraging economies of scale within the CKI group (Wales and West Utilities and Northumbrian Water) collaborating within these groups on procurement of vans, phone network providers and pipes/fittings.

Costs tend to be broadly predictable, the biggest risks to spikes in cost include:

- Requirements for consultancy or professional services.
- Local competition resulting in attrition of skilled staff and consequent backfilling.

The latter is considered to be a particularly significant risk the department finds it challenging to find appropriately skilled individuals that fully understand category specific procurement.

Stores and Logistics



Overview of department

NGN have a contract with CEVA to provide logistics and warehousing, paying annual management charges for these services.

In addition to this, another company (Industrial Ancillaries Ltd) deals with logistics for high pressure pipes and equipment, this particular area is currently in the process of being insourced.

Characterisation of costs

Networks in general would be expected to have significantly higher logistics costs than other (non-network) utility companies owing to the high amount of materials and equipment that they need to manage and deploy. NGN keeps its costs down in this area by periodically reviewing, renegotiating and reviewing its logistics/warehousing providers; this helps ensure that NGN maintains competitive rates within the market (in relation to the intensive logistics service that it requires).

The principal driver of costs in this area is the contract with CEVA (costs per inbound/outbound order). The biggest risks in this area relate to not being able to capture a favourable contract and/or if prevailing conditions (such as Brexit) drive a need for increased logistical and storage activity which will need to be paid for.

NGN has a history of cycling its insourced/outsourced activities to achieve cost savings and this also applies to its stores and logistics operations. To this end, NGN have successfully negotiated with CEVA to deploy its S/4HANA system within its warehouses, this will allow NGN's internal systems to directly interface with their warehousing systems for the first time and will ultimately lead to efficiency savings and also for the potential of insourcing logistics in the future.

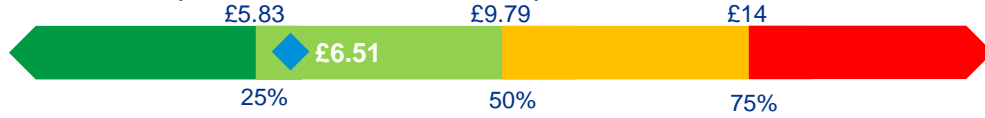
Performance against KPIs

NGN scores well in this area given that these KPIs are comparing utilities as a whole and that networks such as NGN are likely to have significant logistics/warehousing costs without the ability to capture economies of scale that large network businesses can capture.

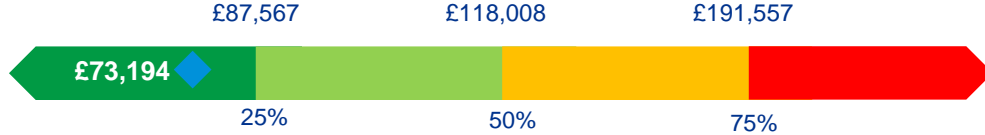
It is noted that NGN do not report their outsourced Stores and Logistics costs within their business plan, the cost is captured as an uplift against other activities and cost lines within the business plan.

Finance

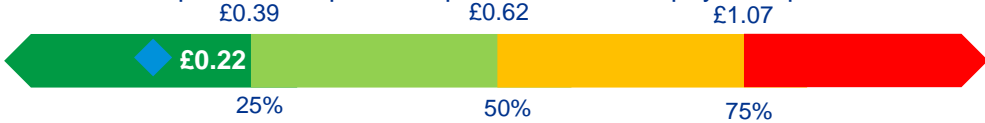
Total cost to perform the finance function per \$1000 revenue



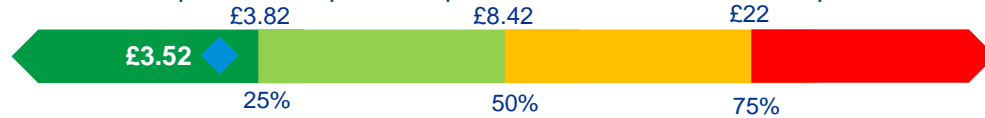
Total cost to perform the finance function per finance function FTE



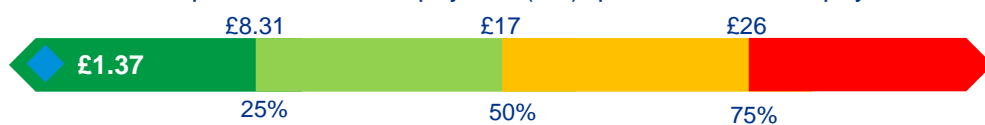
Total cost to perform the process "process accounts payable" per \$1000 revenue



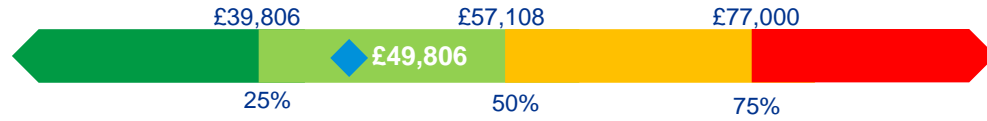
Total cost to perform the process "process accounts receivable" per customer receipt



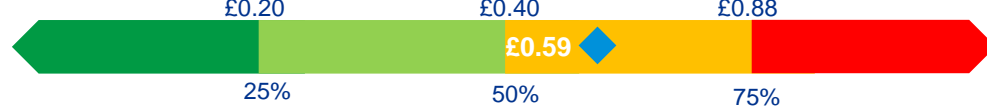
Total cost to "process accounts payable (AP)" per disbursement/payment



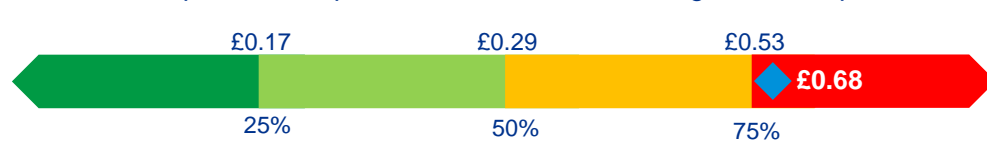
Total cost to perform the process "perform financial reporting" per process FTE



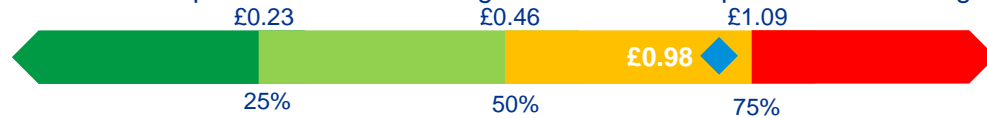
Total cost to perform the process "perform planning/budgeting/forecasting" per \$1000 revenue



Total cost to perform the process "evaluate and manage financial performance" per \$1000 revenue



Total cost to "perform cost accounting and control" and "perform cost management" per \$1000 revenue



Finance (continued)

Overview of department

The finance function includes the following team members:

- 3 employees in Accounts Payable, 1 employee in Accounts Receivable, 1 Cashier.
- 6 employees responsible for Financial Reporting (statutory accounts, regulatory accounts, monthly reporting and forecasting, annual group/shareholder reporting).
- 6 Corporate Financial Analysts (and one junior team member) who are responsible for management accounting and generating supporting data for budgets and forecasts.
- 4 members of the Insight Team (responsible for generating Management Information alongside Financial Planning and Analysis).
- 1 Pricing Manager – responsible for interfacing with Xoserve and monitoring revenue and 1 employee responsible for financial aspects of NGN's connections business.
- 1 Treasurer, 1 Tax and Treasury Manager and 1 Treasury Assistant who administer/manage credit ratings, bonds, interest rate swaps, complex covenants with the EIB, private placements, preparing of tax information and PAYE settlement agreements.

Other responsibilities of the finance function include: managing the 'audit committee', 'treasury committee', pension schemes and contributing required financial information/forecasts to board meetings.

Characterisation of costs

NGN expects costs of the Finance Function to remain broadly flat over the GD2 period, there are unlikely to be fluctuations in the cost of this department, as the work required from the finance department can be expected to be consistent across this period. Historically the function has experienced 'spikes' in costs during periods where external consultancy help had to be procured, for example, to deal with resolution of tax claims and pensions issues and or in the event of changes to accounting standards. Other risks to costs within this department include:

- Changes in tax/accounting/treasury rules
- Changes to pension requirements
- Requirements for regulatory reporting (financial tables)

Given that NGN is a regulated entity there are some costs that it incurs that are additional/different to a non-regulated entity, these include:

- requirements around regulatory reporting (including approaches to cost of capital and the regulatory cost of debt);
- complex pricing (interfacing with Xoserve)
- having to adhere to two reporting calendars (regulatory and financial which effectively doubles the workload in some areas)

NGN mitigates these risks by maintaining a conscientious forward planning effort, including maintaining a presence on various industry groups in order to maximise their foresight of forthcoming disruptive events.

Further to the above, GDNs may also experience specific cost savings compared to other non-network utilities on the grounds that they do not have to maintain a sales ledger or invoicing department (this is conducted on their behalf by Xoserve).

Performance against KPIs

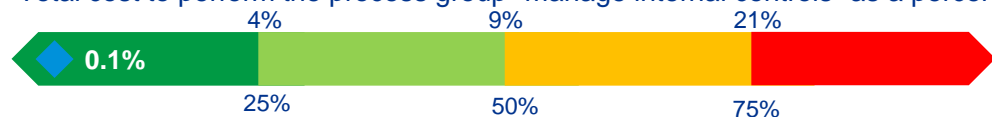
NGN's performance in this cost area is mainly in the upper and second quartiles, this is likely to be reflective of the fact that embedding an experienced team of experts that facilitates efficient delivery of their functions (the department maintains a 1:1 ratio of accredited *versus* non-accredited staff). Furthermore, the size and structure of the team facilitates quick decision making and responsiveness. Efficiencies have clearly been captured through this strategy because the department has progressively reduced in size over the GD1 period (from over 40 individuals to the current figure of 36).

The Finance Function is expected to capture further efficiencies and cost savings with the rollout of S/4HANA over all systems within the business this is expected to facilitate better visibility and more efficient analysis and reporting for the department.

Three KPIs have underperformed in this area, these being performing "evaluating and managing financial performance", "planning/budgeting/forecasting" and "performing cost accounting and control and cost management". These score in the third and lower quartiles. These KPIs largely represent Corporate Financial Analysts and the high costs in this area are likely to reflect the increased complexity that is experienced by a regulated entity.

Audit

Total cost to perform the process group "manage internal controls" as a percentage of revenue



Overview of department

NGN's internal audit function typically consists of 5 FTEs.

The function has a broad scope, covering regulatory, engineering and HSE compliance and audits, as well as more conventional finance focused audits (which comprise only 30% of the work done in this department). As a result, the staff make-up of the function is more varied than a typical audit function, including staff with process and engineering related backgrounds.

Characterisation of costs

Costs in this area are principally driven by salaries and, to a lesser degree, the periodic requirement for external consultancy support.

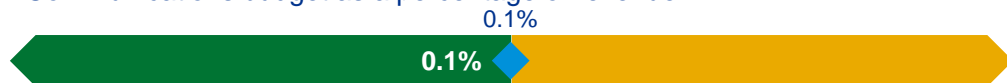
Since the audit schedule is determined each year by the business, the workload is largely internally dictated by business need, so demand does fluctuate in accordance with this. This being said, workloads are generally predictable in the short and medium term and the department is unlikely to experience unpredictable fluctuations in demand.

Performance against KPIs

NGN scores within the third quartile for this function, this is likely to reflect the broad scope of responsibilities that this group must cover (i.e. financial, regulatory, engineering and HSE compliance). As a result, the composition of staff within this department is likely to require broader levels of expertise/qualification (compared with a utility that whose principal audit concerns are solely centred around financial compliance).

Communications

Communications budget as a percentage of revenue



Characterisation of costs

Costs in this function comprise salaries and also the use of external agencies (e.g. for printing and production of materials, event hosting and market research).

Costs remain broadly flat through GD1 and moving into GD2 despite increasing requirements and pressures being applied to GDNs, such as:

- The need for more intensive and detailed stakeholder engagement programs.
- Increased requirements to produce reports against a broad range of regulatory requirements.
- Increased requirements to produce communications through different formats, media channels, accessibility criteria and languages.

Despite an increasingly demanding environment NGN has successfully managed to keep costs broadly flat in this area (including maintaining a steady team size throughout the period). This could be an indication of efficiencies that NGN has been able to capture along the way (including the insourcing of the design team).

Costs are principally driven by prevailing political, regulatory and media sentiment. In this regard this function has a large reactive component to its activities (for example, in response to large incidents and significant local disruption). Other elements of the workload can be predicted, particularly in relation to stakeholder Engagement (i.e. there will be an increased need for stakeholder engagement leading up to price review periods).

Overview of department

The Communications function deals with both internal and external communications and comprises 8 staff (including two designers). Activities include:

- Managing and developing the brand.
- Design and production of all documents and communications materials (previously this was an outsourced function).
- Website design.
- Maintenance of social media feeds.
- Media monitoring and dealing with media enquiries.
- Public relations and managing communications in response to incidents.

The Communications function also supports stakeholder engagement activities whose principal responsibility is to implement stakeholder engagement in line with Ofgem requirements, this includes implementing market research events and analysing and reporting on the results.

Performance against KPIs

NGN was benchmarked against 'Business to Consumer' companies because, in this instance, a utilities sector benchmark was not available, it scored at the median value.

The primary driver behind a median level score is likely to be the unique and demanding communications requirements that NGN must adhere to as a regulated company.

In addition, the applied benchmark does not make a distinction in relation to the size of the company (the median communications budget of the 94 companies used in this benchmark is £4m) larger companies have the opportunity to capture significant economies of scale in this area.

Property

Average office rental cost *versus* equivalent average 'achievable open market rent'
£189/m²



Average yard/depot rental cost *versus* equivalent average 'achievable open market rent'
£58/m²



Overview of department

NGN operate from 7 offices and 17 depots.

NGN also uses an outsourced property management company to manage key functions in its estate. This is paid as a yearly management fee.

All but five of NGN's properties are leases/leasehold (rather than freehold) this is a strategic choice taken by NGN because they feel it provides them with additional flexibility that is essential within the regulatory environment in which they operate. For example, each of NGN's lease contracts include break clauses at 5-7 year intervals (broadly synchronised with the regulator calendar) to allow them to adapt to changing business needs.

Characterisation of costs

Key cost drivers within this department (over and above that of rents/rates) include:

- Insurance.
- Utilities (historically, inefficient buildings have been costly).
- Facilities and maintenance.
- The need to have resources in the right place (i.e. NGN has nine operating areas, covering a wide area and it needs to have the facilities to be able to respond to gas emergencies in each of those areas).
- Limited availability of suitable sites (large spaces are required for parking trucks/lorries and storage). Sometimes NGN is required to build its own sites as a result.

Given the above cost drivers NGN has been undergoing a consolidation/rationalisation exercise over its property portfolio primarily driven by their obligations within the GD1 and GD2 Business Plans. To this end NGN has invested heavily in creating a modernised set of offices/yards/depots that have sufficient capacity and are efficient and fit for purpose from an operational and geographic perspective; allowing them to efficiently deliver their requirements relating to emergency repairs, their asset maintenance program and of their Replacement Expenditure' ('repex') program.

Although the consolidation plan is expected to incur costs in the short term, costs are expected to go down as the consolidation plan is completed.

The biggest cost-related risks to this department are centred on utility bills, this is where the biggest uncertainty/unpredictability lies. NGN has mitigated against this by engaging a third party to manage their utility contracts, NGN has also initiated a meter reading program that serves to reduce overpayments as a result of accumulated estimated readings on some sites.

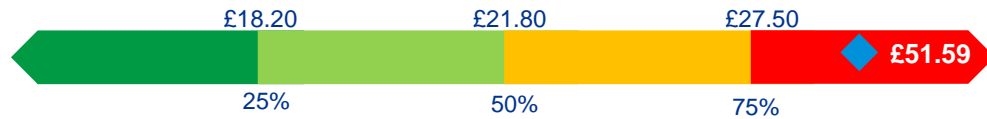
Performance against KPIs

KPMG benchmarked NGN against "achievable open market rents" as reported by Colliers International in their "National Office Rents Map 2019" and "Industrial and Logistics Rents Maps H2 2019" online reports.

As at the time of writing this report NGN has provided KPMG with rental data for 15 of their properties (five offices and ten depots/yards). KPMG calculated an average price from this data and compared this against an expected average price according to "achievable open market rents" reported at the locations of their properties.

NGN was found to be significantly cheaper than average achievable open market rents for both its office and industrial properties. This is likely to represent favourable rates that NGN has been able to capture through long term contracts and agreements and also as a result of the rationalisation exercise it has conducted. To add to this, NGN state that for most of their sites, they are not necessarily compelled to have them situated in 'prime' locations this also enables them to capture more favourable rental rates.

Total IT cost excluding depreciation/amortization per \$1000 revenue



Overview of department

The IT function comprises 58 staff providing development, support and maintenance of NGN's IT systems. The department has evolved from being highly outsourced at the start of RIIO-GD1 with only 11 internal FTEs. NGN has gradually insourced services and grown its capability internally to reduce its dependence on large IT outsourcing firms which were seen as offering poor service and poor value for money.

Characterisation of costs

The opex costs for this function are predominately hardware, software and staff. Opex costs dipped slightly during 2018/19 as NGN moved over to new maintenance contracts, the costs for which did not kick-in until 2020/21. There has been additional investment in IT security of £650k in 2019/20 & 2020/21. Opex costs are expected to remain fairly flat going forward into GD2.

NGN has made a large capex investment in SAP over a multi-year programme which is coming to an end. Total IT capex investment peaked at £24m in 2018/19 but will reduce to an average of £10m pa in GD2.

Performance against KPIs and recommendations

Overall NGN is continuing to invest heavily in its IT systems bringing them up-to-date with the expectation that it will convey significant efficiency improvements.

The significant level of investment is reflected in the benchmark score. NGN's IT spend (opex plus capex) is higher than the benchmarks both as a function of revenue and per FTE. However, it should be noted that, compared to others in its comparator group of Utilities, NGN is expected to have disproportionately lower revenue on the grounds that it is an asset-based business with a relatively small workforce and retail customer base.

Insurance and claims

Overview of department

The Insurance and Claims cost group is run by the Insurance and Claims Manager and the Legal Director & Company Secretary (working closely alongside a third party Insurance Broker), the department is responsible for the following:

- Tendering for the brokerage service when necessary;
- Benchmarking cost data;
- Provision of required information to the broker (up to date personnel figures, fleet figures, property portfolio etc.); and
- Conducting periodic reviews of deductibles and excess.

Characterisation of costs

NGN is budgeting to spend £3.4m per year over the GD2 period on insurance and claims, this forecast is largely based on historical performance:

- £1.6m relates to insurance premiums; and
- £1.7m is allocated to 'other insurance costs' (which largely consists of claims and payments of deductibles/excess).

NGN aims to capture favourable premiums through three mechanisms:

- Tendering for and utilising a broker;
- Capturing economies of scale by arranging some insurance cover at the group (CKI) level (including motor vehicle, property and business interruption cover); and
- Where possible, benchmarking specific insurance costs against Wales and West Utilities (who are also owned by CKI). The following insurance cover is reviewed:
 - Property Damage & Business Interruption
 - Terrorism and/or Sabotage
 - Public & Products Liability
 - Employers Liability
 - Crime
 - Personal Accident & Travel
 - Directors & Officers Liability
- This strategy has been seen to have a positive effect on NGN's insurance costs which have trended downwards from a cost of £4.34m in 2013/14 (largely a result of incremental decreases for most premiums). Despite this, it is notoriously difficult to control costs of insurance premiums and claims in the medium term. Insurance costs are largely driven by prevailing market and sector conditions on a global level, for example, bad insurance sector performance in the US can have effects on premiums in the UK as global insurance companies try to recover losses and mitigate risks. NGN acts to mitigate against the unpredictable medium-term nature of insurance claims by seeking longer-term insurance cover where this is deemed appropriate.

Performance against KPIs

Given that Insurance cover and premiums are in many ways bespoke (dependant on the nature of the company, risk appetite, legacy claims structure etc.) it is not possible to benchmark these against 'like for like' costs at a departmental level. KPMG do however note that NGN make significant efforts to facilitate the capture of competitive rates (as described above).



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We have indicated within this report the sources of the information provided. We have not sought to verify independently those sources unless otherwise stated within the report.

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