

Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.



"The business environment is in transition across the utility sectors, with the industry challenged by a changing regulatory environment, climate change, security of supply and uncertainties regarding future network requirements. These factors also influence the industry's approach to capital expenditure."

- Claudia Preedy - B2B Analyst

This report looks at the following areas:

- What are the key drivers for capital investment in the water and sewerage industry?
- What are the key drivers for network investment in the electricity transmission and distribution sector?
- What drives capital investment in the gas supply and distribution industry?
 How do recent changes in the regulatory framework affect the approach to capital investment?
- What are the expenditure plans for the current regulatory control period in the various utility sectors?

Infrastructure investment will continue to be a key focus across the utility sectors, driven both by the need to replace old assets and new capacity requirements on networks. However, approaches to investment are now shifting across sectors due to changes in the regulatory environment, including increased pressure to reduce costs for consumers while ensuring security of supply. There is a focus on innovation, efficiencies and long-term outcomes in infrastructure management and investment, replacing the short-term outputs and capital expenditure preferred in the past. The scope for traditional infrastructure investment may be limited, but there will be more opportunities for companies that can provide innovative solutions for efficient network and asset management.

BUY THIS REPORT NOW

VISIT: store.mintel.com

CALL: EMEA +44 (0) 20 7606 4533

> Brazil 0800 095 9094

Americas +1 (312) 943 5250

China +86 (21) 6032 7300

^{АРАС} +61 (0) 2 8284 8100

EMAIL: reports@mintel.com

DID YOU KNOW?

This report is part of a series of reports, produced to provide you with a more holistic view of this market



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Table of Contents

Executive Summary

The market

Water & sewerage sector

Figure 1: UK capital expenditure on water and sewerage services, 2015/16-2016/17

Electricity transmission & distribution industry

Figure 2: Forecast network investment of the electricity distribution network operators in Great Britain, 2015/16-2022/23

Figure 3: Capital expenditure by the electricity transmission industry in Great Britain, 2012/13-2016/17

Gas transmission & distribution industry

Figure 4: Total gas transmission and distribution capital expenditure, 2012/13-2016/17

Market factors

Utility industry regulation

Legislative factors

Companies

What we think

Key Insights

Will the UK's decision to leave the EU affect the country's renewable energy generation and decarbonisation targets?

What does the shift towards total expenditure (totex) and long-term outcomes in AMP6 mean for the water and sewerage industry?

What are the expectations of the regulatory framework for price review 2019 and beyond?

What challenges does the rapid rise in distributed generation pose for distribution network operators?

Introduction

	Definitions
	Water & sewerage
	Electricity transmission
	Electricity distribution
	Gas distribution
	Gas transmission
	Methodology
	Abbreviations
Ma	arket Positioning
	Customers

Suppliers

Market factors

UK Economy

Overview

Figure 5: Forecast GDP development 2017-21

Figure 6: UK GDP quarterly development, 2004-17

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Inflation Interest rates House prices Figure 7: UK house price changes, 2006-17 Consumer spending Manufacturing Figure 8: UK manufacturing, 2014-17 Business investment Figure 9: UK GFCF, chained volume measures, seasonally adjusted, 2004-17 Imports Exports Water & Sewerage Industry Key points Industry regulation Legislative environment European Water Framework Directive (WFD) Urban Waste Water Treatment Directive (UWWTD) The Drinking Water Directive Revised Bathing Water Directive Implications of Brexit on the UK water and sewerage sector Transfer of private sewers in England and Wales The Flood and Water Management Act 2010 Water and sewerage retail competition opens up for all business customers in England in April 2017

No government decision yet to open up household retail market to competition

Water & Sewerage Capital Expenditure

Key points

Total capital expenditure

Figure 10: UK capital expenditure on water and sewerage services, 2010/11-2014/15

Figure 11: UK capital expenditure on water and sewerage services, 2015/16-2016/17

Sewerage-related capital expenditure

Figure 12: Analysis of sewerage-related capital expenditure, by water and sewerage companies in England and Wales, 2010/11-2014/ 15

Figure 13: Analysis of sewerage-related capital expenditure, by water and sewerage companies in England and Wales, 2015/16-2016/ 17

Figure 14: Analysis of sewerage capital expenditure in England and Wales by water and sewerage companies, by type, 2015/16-2016/ 17

Water-related capital expenditure

Figure 15: Analysis of water-related capital expenditure, by water and sewerage companies in England and Wales, 2010/11-2014/15 Figure 16: Analysis of water-related capital expenditure, by water and sewerage companies in England and Wales, 2015/16-2016/17 Figure 17: Analysis of water capital expenditure in England and Wales by water and sewerage companies, by type, 2015/16-2016/17 Figure 18: Analysis of water capital expenditure in England and Wales by water only companies, by type, 2015/16-2016/17

Scottish water capital expenditure

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Figure 19: Analysis of Scottish Water capital expenditure on water and sewerage services, 2012/13-2016/17

Northern Ireland capital expenditure

Figure 20: Analysis of Northern Ireland water capital expenditure on water and sewerage services, 2012/13-2016/17

Water & Sewerage Future Capital Expenditure

Key points

Future challenges facing the water and sewerage sector

Figure 21: UK population, by region, 2014-36

Expectations of regulatory framework for price review 2019 and beyond

Opening up of non-household retail market in England to provide new opportunities for water and sewerage companies

Forecast capital expenditure

England & Wales - AMP6 2015-20

Move towards long-term alliances and frameworks across industry

Figure 22: Total expenditure (totex) allowance for AMP6 in England & Wales, by water & sewerage company, 2015/16-2019/20

Thames Tideway Tunnel

Figure 23: Estimated cost of Thames Tideway Tunnel, 2015/16-2021/22+

Scotland Investment Programme 2015-21

Figure 24: Forecast capital expenditure for Scottish Water, 2015/16-2020/21

Northern Ireland Investment Programme 2015/16-2020/21

Electricity Industry Market Factors

Key points

Electricity industry market factors

Price controls

UK energy policy

UK committed to reducing carbon emissions by 80% below 1990 levels by 2050

The government remains committed to tackling climate change despite Brexit vote

New government policies urgently needed to achieve long-term emission reduction goals

Government publishes long-awaited Clean Growth Plan in October 2017

Levy Control Framework

Renewable Energy Obligation (RO)

Feed-in-Tariffs (FITs)

Government commits to fresh FIT review before end of 2017

The Renewable Heat Incentive

Contracts for Difference (CfDs)

First CfD auction concludes in February 2015

Second CfD auction winning bids dominated by offshore wind, which has seen a dramatic fall in costs

Next CFD auction scheduled for Spring 2019

Annual Capacity Market auctions are held to help secure the UK's energy supply

Electricity Distribution Capital Expenditure

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Key points

Capital expenditure

Gross capital expenditure

Figure 25: UK gross capital expenditure by electricity distribution network operators, 2011/12-2016/17

Figure 26: UK gross capital expenditure by the electricity distribution network operators, 2012/13-2016/17

Figure 27: Total expenditure by electricity distribution network operators in Great Britain, by type, 2015/16

Smart grid development to support low-carbon economy

Recent years have seen rapid increase in distributed generation connected to DNOs' networks

Figure 28: Distributed generation connected to the distribution network during DPCR5, 2011-15

Figure 29: Distributed generation connected to the distribution network, 2015/16

Electricity Distribution Future Capital Expenditure

Key points

New price control framework based on Revenue = Incentives + Innovation + Outputs effective from April 2015

Forecast total expenditure

Figure 30: Actual total expenditure in 2015/16, totex allowance and forecasts for RIIO-ED1, by company

Ofgem slashes £200 million from RIIO-ED1 DNO spending allowances in September 2017

Figure 31: Total expenditure forecast for RIIO-ED1 in Great Britain, by company, 2015/16-2022/23

Figure 32: Forecast network investment of the electricity distribution network operators in Great Britain, by company, 2015/16-2022/

Electricity Transmission Capital Expenditure

Key points

Capital expenditure

Figure 33: Size of electricity transmission network in Great Britain, 2017

Figure 34: Capital expenditure by the electricity transmission industry in Great Britain, 2012/13-2016/17

Figure 35: Capital expenditure by the electricity transmission industry in Great Britain, 2012/13-2016/17

Electricity Transmission Future Capital Expenditure

Key points

New Price Control Period RIIO-T1 2013-21

Figure 36: NGET annual capital expenditure, actual 2014-16 and forecast 2017-21

Figure 37: SHET annual capital expenditure, actual 2014-17 and forecast 2018-21

Figure 38: SPTL annual capital expenditure, actual 2014-17 and forecast 2018-21

Drivers for future capital investment

Tentative signs of investor confidence returning in the UK renewables sector

Energy storage to play key role in transition to clean electricity supply system

Renewables capacity development pipeline

Figure 39: Renewables capacity development pipeline, as of September 2017

Future potential energy mix

Renewables

Nuclear

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Thermal plants Interconnectors Figure 40: Forecast power generation installed capacity under "slow progression" scenario, by source, 2017-42 Figure 41: Forecast power generation installed capacity under "two degrees" scenario, by source, 2017-42 Figure 42: Forecast power generation installed capacity under "steady state" scenario, by source, 2017-42 Figure 43: Forecast power generation installed capacity under "consumer power" scenario, by source, 2017-42 Figure 44: Future potential energy mix in 2037, by scenario Despite Brexit uncertainty, interconnector capacity between Britain and Europe is set to increase Figure 45: Existing and planned interconnectors, as of June 2017 **Gas Industry** Key points Social factors Economic factors The UK's increased reliance on gas imports Government push for shale gas exploration to reduce reliance on imports Wholesale gas prices Figure 46: Average wholesale gas prices, 2006-17 Industry structure and regulatory factors National Grid sells majority stake in its remaining four gas distribution networks in 2017 Roles of distribution networks Ofgem regulates gas network operators via price controls Environmental and legislative factors **Gas Capital Expenditure** Key points The market 2013-17 Figure 47: Total gas transmission and distribution capital expenditure, 2012/13-2016/17 Figure 48: Total gas transmission capital expenditure, 2012/13-16/17 Figure 49: Total gas distribution capital expenditure, 2012/13-2016/17 Figure 50: Total gas transmission and distribution capital expenditure, 2012/13-2016/17 Replacement expenditure (Repex) Figure 51: Length of iron gas mains replaced, by distribution network operator, 2011-16 **Gas Future Capital Expenditure** Key points Overview

Figure 52: Ofgem's required expansion of the number of properties to alleviate fuel poverty, 2013-21

Innovation at centre of new price control model for gas distribution and transmission network Gas network operators to face tougher price controls from 2021

Transmission network

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Figure 53: Annual capital expenditure plans by National Grid Gas under RIIO-T1, by category, 2014-21

Distribution network

Figure 54: Annual capex plans under RIIO-GD1, by GDN, 2014-21

Figure 55: Annual repex plans under RIIO-GD1, by GDN, 2014-21

Figure 56: Forecast total capex and repex during RIIO-GD1, 2013/14-2020/21

Supply Industry Structure

Key points

Companies

AMEC Foster Wheeler

Transformation programme sees Amec Foster Wheeler sell non-core assets

Amec Foster Wheeler acquired by Wood Group in October 2017

Company outlook:

Figure 57: Financial analysis of AMEC Foster Wheeler, 2012-16

Balfour Beatty

Build to Last transformation programme launched in 2015

Figure 58: Financial analysis of Balfour Beatty, 2012-16

Figure 59: Financial analysis of Balfour Beatty by segment, 2015-16

Kellogg Brown & Root Holdings

Company strategy:

Figure 60: Financial analysis of Kellogg Brown & Root Holdings, 2012-16

The Costain Group

Company strategy and performance

Figure 61: Financial analysis of Costain Group, 2012-16

Figure 62: Turnover analysis of Costain Group, by division, 2014-16

Laing O'Rourke

Strategic review 2015-16

Company performance and outlook

Figure 63: Financial analysis of Laing O'Rourke, 2012-16

Morrison Utility Services

Company performance:

Figure 64: Financial analysis of Morrison Utility Services, 2012-16

McNicholas Construction Holdings

Kier acquires McNicholas Construction (Holdings)

Company performance:

Figure 65: Financial analysis of McNicholas Construction (Holdings), 2012-16

Forefront Utilities

BUY THIS REPORT NOW



Report Price: £995.00 | \$1321.06 | €1134.00

The above prices are correct at the time of publication, but are subject to change due to currency fluctuations.

Figure 66: Financial analysis of Forefront Utilities, 2012-16

Further Sources & Contacts

Trade associations & regulatory bodies Energy UK Energy Networks Association Energy Industries Council Office of Gas and Electricity Markets (Ofgem) Office of Gas and Electricity Markets - Scotland (Ofgem Scotland) Office of Gas and Electricity Markets - Wales (Ofgem Wales) Association of Consulting Engineers British Water Chartered Institution of Water & Environmental Management International Water Association OFWAT Street Works UK Trade magazines The Engineer European Process Engineer Plant and Works Engineering Utility Week Trade exhibitions Utility Week Live 2018

edie live 2018

BUY THIS REPORT NOW