

ARE 'ALL ELECTRIC' BUILDINGS THE EUTURE?



The UK government has set an ambitious target to reduce carbon emissions by 80% of 1990 levels, by 2025. The use of fossil fuels as the primary source for heating and cooling buildings is a substantial contributor to carbon emissions, and its continued use by the construction industry is likely to impact the UK's ability to achieve this target.

The construction sector is a dynamic industry which, with the development of new materials and technologies, is continually evolving and providing exciting design solutions across the breadth of the built environment. Yet over the past decade there has been little change in utilising gas boilers and Combined Heat and Power (CHP) and Chillers as the standard method for heating and cooling a building. However, there is a sea change moment on the horizon, as new buildings are increasingly utilising electrical power for both heating and cooling.

This shift throws up several questions, challenges and opportunities. Will buildings still require gas supplies and large risers to distribute flues? How will the alternative plant be accommodated? How are the domestic hot water load requirements met whilst still achieving the energy performance targets? Is there availability in the local electrical supply grid to provide the buildings with the additional electrical load?

The 'All Electric' building will help to improve the air quality within our cities and reduce the

carbon impact of the construction industry. However, the 'All Electric' design method is at the beginning of its life cycle and therefore the design options are relatively limited. New technologies are coming to the market to meet this new requirement but are still relatively unestablished.

In recent buildings, the main challenge in adopting this design approach has arisen from the option not being considered at the initial design stages. This has led to building designs progressing to suit traditional heating and cooling systems, with lighter electrical infrastructure and insufficient external plant space for the 'All Electric' option. The result is that buildings require potentially costly redesign to convert to all-electric.

If considered at the earlier design stages, the cost variance may be negligible or potentially produce a cost saving on the Mechanical and Electrical Installations.

The design of MEP within buildings will continue to evolve so that it can apply newly developed technologies and plant materials to meet the continually changing regulations and environmental requirements. It is essential to continue to promote and adapt to the new approaches to maximise the opportunities for both our environmental footprint and best value design.

To read our full report on All Electric Buildings, visit: marketintel.gardiner.com

INTRODUCTION

UK construction output grew by 3.3% in the year to February 2019 according to the ONS. Weak output growth towards the end of Q4 2018 had led some to anticipate flat or even negative growth in 2019. However, robust growth in both private housing and infrastructure output helped make up for a poorly performing commercial sector, with total output in the three months to February 2019 up by 3.9%.

Strong growth in industrial and infrastructure sectors offset declines in commercial, but the outlook is still a mixed-bag. IHS Markit/CIPS data for February and March 2019 showed a decline in total construction activity, with the first back-to-back fall in monthly output levels since August 2016. Whilst IHS Markit noted that new orders did grow slightly in March, they were still well below their long-term average.

The current economic and political climate is proving to be a breeding-ground for indecisiveness and this will inevitably have an impact on new business confidence and order book volumes. Sectors dependent on high up-front investment for a long-term rate of return, such as commercial buildings, continue to be the most affected by Brexit uncertainty.

MPs recently ruling out a no-deal Brexit has not reduced the purchase of materials as part of firms' stock-building efforts as a hedge against Brexit. Contractors have reported increased delays in getting building supplies due to low stocks and stretched vendor and transport capacity.

TENDER PRICE FORECAST

Whilst our latest tender pricing forecasts are not quite a replica of our previous TPI report, little has changed in outlook as the UK remains in a Brexit-induced holding pattern. With such a politically uncertain environment, long-term forecasting is particularly tricky, but as we explore in this report, in the shorter term there are several key factors at play that could influence UK tender prices.

Our UK average tender price inflationary forecast is 1% for 2019, 2020 and 2021. We then forecast tender price growth to pick up in 2022, rising to 1.5%.

Our 2021 UK average forecast dropped 0.5% compared to our previous set of forecasts, due largely to the results of a few key regional markets such as London and the South East that have caused a drag on the weighted UK average.

For 2019, our forecasts for the South East, Wales and North East have been marginally revised up, whilst our forecast in the North West has been

revised down. Although output in the North West remains on an upward trajectory for the time being, new orders are showing signs of slowing. Consequently we forecast a slower rate of tender price inflation as project programmes are pushed out.

All forecasts take account of all sectors and project sizes as a statistical average, indicating an overall trend in pricing levels. It should be remembered that individual projects may experience tender pricing above or below the average rate, reflecting the project specific components and conditions.

All forecasts continue to assume an orderly Brexit with open market trading conditions being retained.

MACRO ECONOMICS

UK economic growth picked up in Q1 2019, rising by 0.5% in the quarter from a sluggish 0.2% in the previous quarter.

The positive growth figures were driven by unprecedented stockpiling as manufacturers delivered orders ahead of the original Brexit deadline in March. Concerns over potential supply disruption drove a surge in imports in the first quarter, widening the UK's trade deficit from £8.9bn to £18.3bn. However, in Q2 2019, it's likely that businesses will run down their stockpiled inventory which will cause some drag on growth.

The strong manufacturing performance offset a slowdown in the services sector, which only grew by 0.3% as companies opted to delay spending. Whilst the construction sector grew by 1% in Q1 2019, ONS data shows that growth contracted in March, falling by -1.9% compared to the previous month as both new work and repair and maintenance declined.

The Consumer Prices Index (CPI) 12-month inflation rate was 1.9% in March 2019, down from 2.1% in December 2018 and below the Bank of England's (BoE) target of 2%. Rising prices for motor fuels and clothing produced the largest upward contributions to change in the rate between February and March 2019.









MACRO FCONOMICS









The lower-than-expected figure means that consumer prices are rising slower than wages, boosting consumer purchasing power. Consumer Price Inflation looks set to be fairly benign in 2019, giving the BoE's Monetary Policy Committee another reason to keep interest rates on hold.

CONSTRUCTION OUTPUT

The total value of all construction work delivered in Great Britain in February 2019 was put at £13.93bn, which is 0.4% up on the previous month and 3.3% up on February 2018. The monthly growth was driven by a 1.1% rise in All New Work whilst All Repair and Maintenance work slipped back by 1%.

REGIONAL BREAKDOWN OF CONSTRUCTION OUTPUT (ANNUAL GROWTH Q4 2017 - Q4 2018)

REGION	CONSTRUCTION OUTPUT GROWTH % (Q4 2017 - Q4 2018)				
Greater London	-5.20				
South East	10.03				
South West	-8.50				
East	-8.33				
East and West Midlands (Average)	17.23				
Wales	22.34				
Yorks & Humber	10.11				
North West	14.26				
North East	-0.71				
Scotland	-10.10				
Northern Ireland	0.99				

The ONS' seasonally adjusted output figures show that infrastructure and private housing were the strongest performing sectors in February. Both sectors have also performed well over the longer term, particularly infrastructure which saw a 12.6% increase in output in the year to February 2019. However, it was public new housing that saw the highest annual growth in output (14.7%). At the opposite end of the scale, private commercial was the worst performing sector, continuing its downward trend by falling 9.3% in the year to February 2019.

After a disappointing December, output in the first two months of 2019 has been encouraging. Whilst there was a general trend of slowing growth from mid-2018, the most recent figures buck the expected trend and show moderate growth.

However, given the sustained uncertainty surrounding Brexit, G&T expects output to be subdued until further clarity is given. The possibility of an upturn or a 'Brexit bounce' towards the end of 2019 remains which would help output to end the year positively.

NEW ORDERS

After a strong third quarter, new orders fell by -1.9% to £10.75bn in Q4 2018. New order volumes are still significantly lower than they were prior to the Brexit referendum. With the 10-year quarterly average for new orders coming in at just over £12bn, it's clear to see that new order growth has been adversely affected by the current economic and political climate.



MADGIN



CONSTRUCTION INDUSTRY

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MANUFACTURING OUTPUT
(Three Months on same three

▼ -0.6% ▼



OIL PRICES
(BRENT CRUDE)
As of 1st May 2019,

▼ US\$72.18 bbl ▼

Figures are cumulative annual. $\nabla \triangle$ denotes movement trend.



RPI MARCH 2019



UK WAGE GROWTH
(Year on Year three month
Average to Feb 2019)

▲ 3.5%

▼ 2.4%

Infrastructure and private new housing were the only sectors to make a positive contribution to new order volumes, rising 2.4% and 3.2% respectively. Public work seemed to suffer the most in Q4 2018, with public new housing falling -11.3% in the quarter.

On an annual basis, 2018 saw 15.8% fewer new orders compared to the previous year. With Brexit uncertainty growing by the day in 2018, this was to be expected. It also correlates with G&T's latest TPI survey, with several respondents noting that fewer new opportunities were being seen towards the end of 2018, and many projects were not progressing beyond feasibility. However, more recently, many have observed that some projects that were previously put on hold have now been given the go-ahead.

MARKET CONDITIONS

Even with Brexit looming, many of G&T's clients have expressed that it's "business as usual", with several saying that because of the competitive market it's actually a good time to get work on site. Although down from record levels in 2017, the UK remains one of the world's largest foreign direct investment recipients and this is providing some buoyancy to the market.

Whilst contractors' pipelines remain generally strong there is increasing talk of emerging capacity. More Tier 1 contractors are actively seeking workload to fill their order books for next year. As such tender returns are competitive and are more closely aligned compared to the last few years when there was greater variance between the highest and lowest tender returns.

Enquiries are still being received indicating that work is available, but many of the schemes that do move forward are doing so in stages rather than through a full commitment. Contractors continue to tender selectively, exercising a degree of caution until the political situation becomes clearer, but are still keen to fill their order books. The vast majority of our TPI survey respondents anticipate workload to remain steady at current levels over the next quarter. However, longer term, a greater proportion of respondents expect more projects to come to fruition, increasing workload towards the end of the year.

INPUT COSTS

MATERIAL COSTS

The latest ONS data shows that the 'All Work' construction material price index increased by 4.3% in the year to February 2019. There was a brief period of respite in the final four months of 2018 as the All Work index ground to a standstill but the pace of growth has picked up again in the first few months of 2019.

The materials experiencing the greatest price increases in the 12 months to February 2019 were, once again, imported sawn or planed wood (8.7%) and imported plywood (7.8%). However inflation for several key materials flat-lined in the final few months of 2018 which helped take the edge off the most recent annual inflation figures. Ready-mixed concrete is only up 0.4% in the year to February 2019 and concrete reinforcing bars (steel) actually fell by -1% over the same period.

Whilst the recovery of oil prices in the first few months of the year will put some upward pressure on material price inflation in 2019, we anticipate a slight easing compared to last year's material price rises. Most commentators expect moderate inflationary growth throughout the rest of the year as foreign-exchange induced inflation continues to push material costs higher, putting some pressure on tender prices.

LABOUR

Average weekly earnings (AWE) in the construction industry increased by 4.5% in the year to February 2019 to f623 per week – a growth rate that is comfortably ahead of general consumer price inflation. However, earnings peaked in December of last year at £644 and have since fallen by -3.3%.

Companies have been less inclined to award large pay increases as a result of the underlying political uncertainty. However if the Brexit negotiations do lead to a two-year transitional period, certain existing fundamentals (eg labour shortage, sustained high levels of construction output) will continue to put upward pressure on pay. In the shorter term we expect more volatile wage growth, impacted by swings in seasonal demand.

Our latest TPI results also show that since our Q4 2018 TPI survey, a higher proportion of respondents are expecting shortages of skilled labour to transpire over the next six months. With weakened sterling, more foreign construction workers are deciding to return to home economies, compounding the construction skills shortage.

PROFITABILITY AND SUPPLY CHAIN

Both OH&P and preliminaries are at historically high levels. G&T has seen little change in the past three to six months with OH&P remaining at an average of 5-6% and preliminaries around 15%.

Looking forward to the next six months, our survey found that whilst the majority of respondents expect OH&P to remain the same, there was a growing number that thought OH&P may actually fall from current levels as more competitive pricing is seen from main contractors over the elements that they can control.

Whilst we anticipate contractor margins to remain flat in 2019, a portion of the higher input costs may be partially and strategically absorbed by contractors looking to fill their order books and secure turnover. However, with profit margins in the sector already relatively low, it is unlikely contractors will opt to buy work at negative margins.

The slump in new orders in both 2017 and 2018 has left contractors chasing fewer projects. If recent downgrades to UK GDP forecasts for 2019 and 2020 are to be believed, we could see further declines in construction activity, creating a more competitive market and putting downward pressure on tender prices. However, it remains very difficult to predict how the evolving economic and political climate will impact demand, input costs and ultimately tender pricing.

Whilst Brexit uncertainty is still being cited as the reason not to progress many schemes, G&T has seen some backlog projects that were previously put on hold beginning to come back to life. Companies and developers working on larger projects, where higher volumes of labour and materials need careful resourcing so that capital costs are managed without dramatic impact, appear more nervous about entering into new contracts. However, smaller to medium sized low-risk projects are moving forward as business needs continue. The net effect is a reasonably steady workload and a healthy pipeline of business as usual. As a contrary view we may see a significant bounce in new orders once Brexit is clarified as pent up demand is released.

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TENDER PRICE CHANGE

TENDER PRICE ANNUAL PERCENTAGE CHANGE Q1 2019

%	20	2019 2020		20	2021		2022	
Regional forecasts	Now	Last	Now	Last	Now	Last	Now	Last
Greater London	1.00	1.00	1.00	1.00	1.50	1.50	1.50	2.00
South East	1.00	0.50	1.00	0.50	1.00	1.00	1.50	1.50
South West	1.00	1.00	1.00	1.00	1.50	1.00	1.50	1.50
East	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Midlands	1.50	1.50	1.50	1.50	1.50	2.00	1.50	2.00
Wales	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Yorks & Humber	1.00	1.00	0.75	1.00	0.75	1.00	1.00	1.00
North West	1.50	2.50	1.50	2.00	1.50	2.00	2.00	2.00
North East	1.00	0.50	1.00	0.50	1.50	1.00	1.50	1.00
Scotland	2.00	2.00	2.00	2.00	2.00	2.50	2.00	2.50
Northern Ireland	1.50	1.50	2.00	2.00	2.50	2.50	2.50	2.50
UK Average	1.00	1.00	1.00	1.00	1.00	1.50	1.50	1.50

Note: 2022 is a long term average market forecast

COMPARISON OF PUBLISHED FORECASTS FOR TENDER PRICE CHANGE

	G&T UK AVER.	BCIS UK AVER.			ARCADIS LONDON				
	Q1 2019	APR 19	Q1 2019	Q2 - Q2	Q1 2019				
% CHANGE									
2019	1.00	3.10	1.00	2.30	2.00				
2020	1.00	3.90	1.00	1.90	3.00				
2021	1.00	4.60	1.50	N/A	3.00				
2022	1.50	6.30	1.50	N/A	3.00				

Note: All figures relate to year on year quarterly changes

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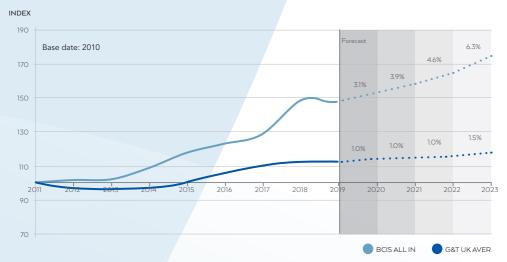


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TENDER PRICE TREND

TENDER PRICE TREND "ALL UK TPI" Q1 2019



TENDER PRICE TREND "LONDON TPI" Q1 2019

INDEX 190 Base date: 2010 180 160 140 1.5% 130 100 2016 2017 2018 2023 2019 90 80

Note: BCIS does not publish regional forecasts.

BCIS LONDON G&T LONDON

Our advice is to review each project on its own merits. This forecast publication must be treated as a guide only, being that it is based on averages of various types and sizes of projects across a region, ascertained through our latest market research. The quality, both of design and desired end product, procurement route (particularly ownership and transfer risk), delivery timescales, complexity of design and desire of contractors to tender should be carefully considered in project specific estimates and their outturn cost.

Suitable allowances should be made for project specific designs, site conditions and local market conditions, which should be reviewed regularly with your Gardiner & Theobald team to determine the appropriate base cost.

