



# Minimising resource use

“The global population is set to grow by 28 per cent and is predicted to use 71 per cent more resources per capita by 2050, this could be nearly 30 per cent lower with resource efficiency measures. Globally, more sustainable use of materials and energy would not only cover the cost of keeping global warming below 2 degrees Celsius, but also add an extra \$2 trillion to the global economy by 2050.” UNEP

## Energy performance and intensity

We measure our energy intensity by employee (average full time equivalent employee), by turnover (per £million), and also by output from our power generation sites (MWh) so that we can monitor this as the company grows and as demand at the power generation sites changes over time.

	2015*	2016
MWh Per employee	5.48	4.4
Per £1m revenue	40.19	32.05
Per MWh generated**	0.17	0.12

Note:

\*Includes a full carbon year of data for both AMEC and Foster Wheeler representing full baseline for 2015

\*\*MWh generated from our two power generation sites in Chile and Martinez

## Annual fuel and energy consumption (MWh)

Heating Energy	2015 (MWh)	2016 (MWh)	
Natural Gas	49,930	43,263	↓ 13%
<b>Total Heating Energy</b>	<b>49,930</b>	<b>43,263</b>	<b>↓ 13%</b>
Electricity	144,368	104,157	↓ 28%
Onsite Fuel	13,238	19,335	↑ 46%
Heat & Steam	11,703	6,702	↓ 43%
<b>Total Energy</b>	<b>169,309</b>	<b>130,195</b>	<b>↓ 23%</b>
<b>Overall Total</b>	<b>219,240</b>	<b>173,458</b>	<b>↓ 21%</b>

Note: annual fuel and energy consumption figures exclude our power generation facilities.



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### Annual fuel and energy consumption (MWh)

The majority of our energy usage continues to come from the electricity consumption of our offices and in the manufacturing plants of our GPG business. This accounts for roughly 82% of our total energy consumption. The majority of our natural gas consumption (65%) continues to come from our Americas offices, where use of this as an energy source is more prevalent and where we have the bulk of our global locations. On site fuel usage predominately comes from our Transmission and Distribution business, which saw an increase in remote sites that did not have access to mains supplied electricity and therefore relied heavily on generators.

### Energy management

Our direct energy consumption is associated mainly with our office and site locations' building utility and includes the consumption of electricity, natural gas, heating oil, steam and generator fuel. We manage energy and heating at a local level with the office/site using our environmental management systems, our global environmental standards and also our office sustainability programmes to manage and reduce usage.

Our office efficiency 5 star programme supports the decision making process when we procure new office space, and also within our existing office environments as we look to improve the efficiency of our activities.

Looking at efficiency criteria across five key areas:

- Building infrastructure
- Building operation
- Energy management and performance improvement
- Efficient occupancy
- Water efficiency

We have rated our existing offices using the office efficiency programme, awarding them a star rating should the criteria for each star be met. The intention is to improve the efficiency star ratings of our office portfolio as we progress through the programme, which in turn should reduce our utility consumption and costs in this area.

In 2015 we rolled out our efficiency programme by introducing office profile questionnaires aligned to the 5 star efficiency programme within our carbon reporting software. Completion of an office 5 star profile, and the development of an improvement plan based on the result of this, were the requirements of the 2015 office sustainability promises programme. 2016 saw the continued roll out of the programme, with the focus placed on the implementation of improvement plans, increasing star ratings and efficiency both in the consumption of utilities and in the utilisation of our office space. Implementation of these plans has been met with enthusiasm and tangible results have been recorded throughout our offices, with the first 5-star rating awarded to an office in the UK. Learn more about what our offices are doing to attain their star ratings in our [5 star efficiency case studies](#)



amec  
foster  
wheeler

### Water management

We began to review our water risk and usage in 2012 by appraising our permanent locations. We assessed their exposure to water risk and assigned priority levels to each of our offices based on water stress risk and usage. Using this priority listing, we launched a pilot water consumption improvement programme in our top priority sites in the Americas in 2015. This helped us better quantify water usage so that best management practices would be identified. We have continued with this work and increased our visibility of actual data usage by the NECIS business, collecting actual usage figures with the aim of developing a benchmark to set future reductions against. We will carry on the work to increase the collation of actual water usage data where it is available as an ongoing improvement area. Where actual data is not available or accessible we continue to calculate water data based on country-specific benchmark water consumption figures.

