

## MAKING TOMORROW A BETTER PLACE

Overview

Building a successful business: our vision and approach

Enabling low-carbon economies

Protecting the environment

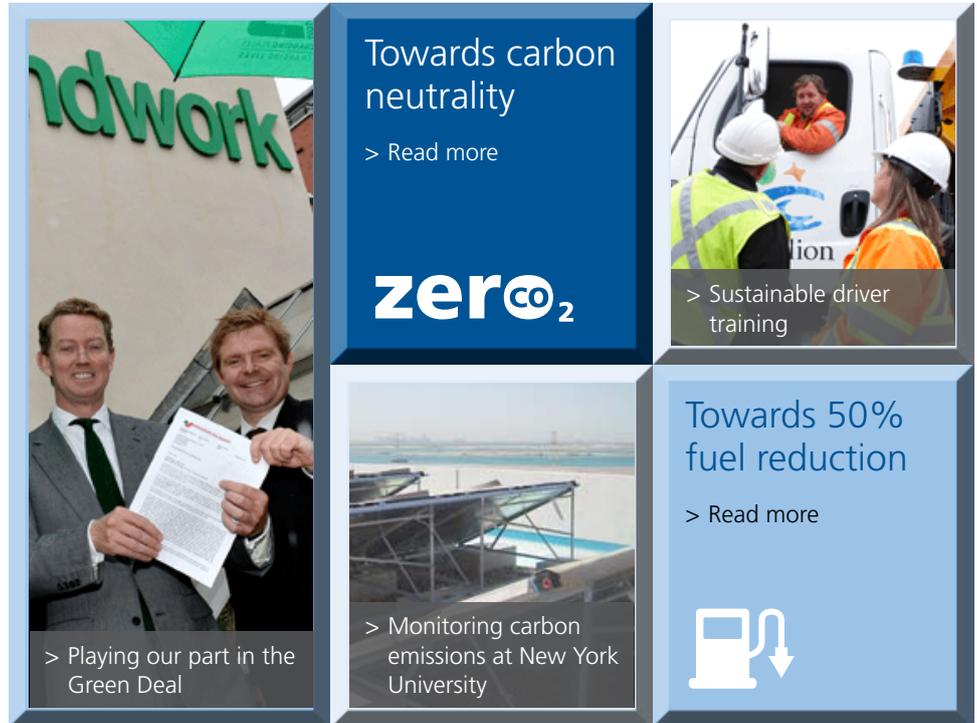
Supporting sustainable communities

Providing better prospects for our people

Leading the way: our customers and suppliers

### Committed to sustainable business... ...by enabling low-carbon economies

By partnering with others, we are well placed to tackle the global challenge of climate change, and to harness the opportunities presented by low-carbon markets.



**Towards carbon neutrality**  
> Read more

**zeroCO<sub>2</sub>**

**Towards 50% fuel reduction**  
> Read more

> Sustainable driver training

> Playing our part in the Green Deal

> Monitoring carbon emissions at New York University

### In this section

#### Enabling low-carbon economies

- > Committed to action: playing our part in the Green Deal
- > Climate change
- > Meeting our carbon targets
- > Our carbon footprint
- > Performance data

### Viewpoints

*"The essence of a successful Green Deal lies in inspiring and exciting homeowners about the scheme. This can only be achieved by working on an extremely local level, in partnership with the local authority and trusted businesses within the community. Carillion already has a huge tradition of working with communities, and we want to take it even further."*

**John Swinney,**  
Business Development Director,  
Carillion Energy Services



> Read more

### Performance

**Carbon footprint**  
**211,795 tonnes**  
2011: 265,743

**Fuel purchased**  
**6% reduction**

> Read more

### Challenges and opportunities

> **Winning contracts for low-carbon energy services**

Harnessing the potential of the low-carbon economy

> **Climate change impacting our business**

For example the rise of drought in MENA

> **Creating employment and skills through the Green Deal, UK**

A major opportunity to demonstrate leadership and influence others

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Enabling low-carbon economies > [Committed to action: playing our part in the Green Deal](#)

### Committed to action: playing our part in the Green Deal

The Green Deal is a major initiative from the UK Government designed to help householders and businesses save money faster through energy efficiency, and to create employment in the low-carbon sector.



 [Watch video](#)

The deal is that if people take measures to make their homes more energy efficient, the Government will provide them with upfront finance so that they can benefit from energy savings much faster. Finance is in the form of a loan that will be paid back via the householder's savings on their energy bills.

As the UK's leading independent energy services provider, capable of creating major new opportunities in the domestic and business energy services market, Carillion Energy Services became a key Green Deal delivery partner in 2012.

Carillion's partnership commitment initially focused on its [Birmingham Energy Savers programme \(BES\)](#). This joint initiative with Birmingham City Council plans to refurbish around 60,000 homes and non-domestic buildings with energy-saving measures like new insulation and boilers.

Beyond its mission to make heating more affordable to households, the initiative hopes to create at least 360 jobs and help 600 people from priority groups into placements, training and jobs, many through Carillion's investment and skills training, but also by encouraging its business partners to invest locally in a range of new green energy facilities. See [Skills for marginalised groups: UK](#).

In December, Carillion announced a partnership with Citysave Credit Union to further roll out BES and put in place funding arrangements to make the work affordable and accessible to all, with a focus on vulnerable households who may be struggling with rising energy bills.

*"There are not many times when what we do helps change the world, but this is one of them."*

**Stephen Hughes**, Chief Executive of Birmingham City Council



#### John Swinney speaks at ReXpo on the Green Deal

John Swinney, Business Development Director, Carillion Energy Services, argues that the essence of a successful Green Deal lies in inspiring and exciting homeowners about the scheme.

 [Watch video](#)

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### Enabling low-carbon economies > [Committed to action: playing our part in the Green Deal](#)

Carillion's Green Deal activities include marketing and engagement, home energy assessment, installation of measures, aftercare and maintenance, programme management, and finance and business systems. There are also opportunities for residents to gain new skills, access 'green' jobs and grow their businesses.

Getting people to buy into the Green Deal concept is one of the biggest challenges facing the Government and partners like Carillion. We have applied our community engagement expertise to tackle this. For example, we held a series of three one-day events run by the Energy Saving Trust (EST) on behalf of the Kent and Medway Green Deal Partnership, aimed at explaining the Green Deal to local small businesses and showing them how to become registered Green Deal suppliers.

In demonstrating our strengths as a key partner of the Green Deal as it takes shape, Carillion is well placed to win new work, guarantee a pipeline of skills and create the thriving communities necessary to succeed in the emerging low-carbon economy.

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Enabling low-carbon economies > [Climate change](#)

## Climate change

To fulfil our vision of becoming the leading sustainable support services company, we offer solutions that mitigate the effects of climate change and help people adapt to its impacts.

Our aim is to ensure that financial success does not have to equate to high emissions. We want to reduce climate change risks and maximise potential new contracts to the businesses. Our services are already helping Carillion's customers drive down carbon emissions and realise cost savings. We continue to work towards carbon neutrality, so that together with our customers, we become the lowest-carbon producers in our respective sectors.

For example, at the Muscat airport, Oman, contract, the team has adopted the high-tech Kingspan KoolDuct® system for its air conditioning requirements. The technology reduces embodied carbon by 30% as well as decreasing the need for raw steel material. The system is also faster to install, saving construction time.

Carillion Energy Services is the UK's leading independent energy services provider, capable of creating major new opportunities in the energy services market. With sector-leading expertise in energy efficiency solutions, we are in a position to transform the sustainable energy market in the UK. See also Sustainable solutions for our customers.

### Ireland

#### Community energy saving

Connect with Energy was a week-long public event in Dublin, Ireland, to provide advice and support to homes and businesses on how to save energy and money, as well as create new job opportunities. The Carillion Energy Services team exhibited and ran two seminars demonstrating ways to reduce energy consumption and highlighting Carillion's approach to sustainability in the home and at work. The feedback was very positive from both the Council representatives and attendees, and attracted the highest number of attendees among the exhibitors.



#### Collaboration

We engage with key stakeholders on climate change on all of our contracts. Working towards mutual benefit for our customers and suppliers is particularly important. See Stakeholder engagement and Leading the way sections.

### Committed to...

...becoming a carbon-neutral business by 2015

...reducing the amount of fuel we use by 50% by 2015

...reducing the amount of energy we use in our buildings by 20% by 2015

> See our progress against targets

### 7th position



among nearly 3,000 organisations in the Carbon Reduction Commitment league table



**Paul Russell**, Managing Director Carillion Highways Maintenance, pledged to cut his mileage by 10% and his vehicle miles per gallon by 20%. Find out how he did.

 [Watch video](#)

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UK

### Combating fuel poverty through Warm Front

Carillion Energy Services has collaborated with the UK Government Department for Energy and Climate Change to help 2.3 million people at risk of fuel poverty tackle energy loss from their homes via the Warm Front scheme. Grants of up to £3,500 were made available to households to install low-carbon heating and insulation measures in 2012, the final year of applications for the scheme.



In anticipation of the wind-down of Warm Front, we committed to reach as many people as possible who are eligible for Warm Front. We decided to go beyond traditional marketing methods and instead reach people through Home Improvement Agencies. There are a hundred or so of these Agencies across the country and they are a major point of contact for the target groups, helping around 240,000 elderly and vulnerable people every year with essential adaptations to their homes.

In partnership with Foundations, the national body for Home Improvement Agencies, we ran a year-long project of awareness-raising, training and advice to ensure all the Agencies were fully aware of Warm Front. Carillion provided the initial training and support materials to Foundations so they could be advocates of the Warm Front scheme.

As part of a government-funded energy-efficient cities initiative, Carillion has partnered with Belfry and Cambridge University to market, sell and install a new low-carbon heating product, EcoPod. At a broader level, Carillion continues to play an advocacy role in global climate change issues. For example, we are active in the UK's All Party Parliamentary Climate Change Group and a Founder Member of the Prince's Mayday Network on climate change. We have also made a public commitment supporting the Energy Bill Revolution, which is a campaign designed to persuade government to use carbon taxes raised on the use of dirty fossil fuels to support eradicating fuel poverty.

UK

### Helping tenants cut their winter fuel bills

Our Energy Services business is an official partner of the UK Government's Community Energy Saving Programme, a £350 million initiative to make homes more energy efficient. Carillion is working alongside housing associations to replace their tenants' old electric heaters with energy-efficient A-rated gas central heating systems.



£820,000

saved through telematics system in our UK vehicle fleet

Winner



Adapting to Climate Change category of the North West Public Health Awards, for the Manchester Piccadilly Estate

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### Meeting our carbon targets

Meeting our ambitious carbon targets requires a holistic view of the direct and indirect carbon emissions arising from our global operations.

Our [Carbon Policy](#) sets a framework to do this, including laying out how we will actively reduce our energy consumption and emissions arising from the operation of our facilities and vehicle fleet, as well as from employee business travel and from our clients and supply chain. Our aim is to:

- avoid unnecessary carbon emissions
- reduce unavoidable carbon emissions by introducing technology and better planning
- give our customers and suppliers the opportunity to choose low-carbon solutions
- source low-carbon products and services, including renewable energy
- assess the embedded carbon of the products we use.

We will offset any remaining unavoidable emissions from our operations at the end of 2015.

#### UK

#### Employee idea for cutting carbon

Steven McKenna of Carillion Facilities Management won the S Factor Enabling Low-Carbon Economies category. Steven organised a car share model for the Modern Housing Solutions team to help save carbon emissions.



He devised the Personal Transport Plan – a simple yet effective way to enable green travel in the workplace. Team members' information is gathered (postcode, method of transport and shift patterns) and plotted onto an interactive map, revealing car share possibilities.

The Personal Transport Plan was recently used by the Modern Housing Solutions team during Green Transport Week, when they reduced their overall travel by 473 miles.

 [Watch Steven's S Factor video](#)

#### Carbon reduction highlights 2012

The majority of the reductions we made in 2012 were likely to be as a result of fewer UK contracts impacting our plant fuel consumption, as well as property rationalisation, changes of tenancy and milder winter weather.

However, some reductions can be attributed to our carbon reduction efforts in 2012. We launched over 20 carbon reduction initiatives across the business, highlights of which are given below.

**Smarter Thinking:** In July we launched this Group-wide employee behaviour change campaign to raise awareness of sustainability. See the outcomes in [Our people and sustainability](#). Over the next year, the campaign will focus on office energy and promoting positive behaviours across our estate.

### 167 grams per mile



of CO<sub>2</sub>e saving at Sellafield by working with our client to switch to electric commercial vehicles

#### Abu Dhabi

#### Monitoring carbon emissions at New York University



Saving energy and cutting carbon emissions are important goals of the New York University contract in Abu Dhabi. A centralised building management system is being put in place that will connect the whole campus, enabling optimised energy use in real time.

The university will also have one of the largest solar thermal systems in the world, capable of meeting all the residential demand for hot water. Carbon emissions monitoring will be available for car parks in order to reduce the extract fan loads when the facility is not being used as heavily.

### 17 tonnes



of carbon saved during Earth Hour across our Middle East and North Africa businesses

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**Vehicle efficiency:** We have installed the very latest fuel-saving technologies across our fleet of commercial vehicles in the UK and Canada:

- Fuelsaver is fitted to vehicles to re-map the engine management unit of the vehicle, optimising the vehicle for UK driving conditions and improving fuel efficiency. The device will reduce Carillion's £22 million UK fuel bill by 10%.
- Telematics monitors vehicle speeds, acceleration and braking, reporting data on driving behaviour back to drivers and managers. In the UK, this has saved £820,000 which equates to 1,513 tonnes of carbon saved.
- A global positioning system (GPS) has been installed in a total of 637 commercial vehicles in Ontario and Alberta, Canada. Reported figures show that there has been a 16% reduction in fuel use when normalised by turnover. As well as fuel efficiency gains, these technologies can help improve the road safety of our drivers and reduce wear and tear across our commercial fleet.

During 2012, we also carried out a detailed review of our UK future company car procurement. We designed a choice list that will reduce the carbon emissions of the fleet by a minimum of 10% – if not more – if company car drivers are choosing the best carbon-performing vehicles on the list.

**Building energy:** In 2012, we scaled up our efforts to make our buildings more efficient. Display Energy Certificates were placed in all principal properties showing how they perform in terms of energy efficiency. Trained Energy Champions are available at many sites to drive energy-efficient behaviour and promote best practice. In the Middle East and North Africa, over 5 million kWh were saved during 2012. This was achieved through having weekly Earth Hours across contracts, undertaking generator audits, establishing generator banks and securing connections to mains power where possible.

**Plant fuel:** We introduced a plant fuel calculator across all of our civil engineering sites. This simple tool gives us a much greater understanding of where and when plant fuel is being consumed. We also installed telematics technology into our plant machinery. Initial trials are showing extremely positive results, giving site managers full visibility of when and why machinery is using fuel, and with operators taking appropriate steps to optimise performance.

Other initiatives launched in 2012 include hybrid vehicle trials, tighter controls on staff travel sign-off, and activities for Earth Hour – the World Wildlife Fund's (WWF's) global awareness and action day, during which Carillion employees across the world turned off non-essential lights and other energy-consuming equipment. See [Our people and sustainability](#).

In 2013, we will keep up momentum on meeting our carbon targets. Plans include a car sharing scheme for the entire UK business, an embodied carbon tool that will allow us to measure the complete impact of our contracts from design through to construction and operation, and a bespoke Carbon Reduction Plan for all contracts, linked to the business unit's overall sustainability plan.

### Canada

#### Sustainable driver training in Alberta



In support of Carillion Canada's commitment to enabling low-carbon economies, Transport Alberta has trained and evaluated over 340 commercial drivers – the first step in launching its Training Academy.

The intensive eight-hour class covers everything from the rules of the road to fuel efficiency and good maintenance practices. The result has been a 12% reduction in fuel consumption against budgeted levels.

In 2013, other tracking indices will be investigated to develop a better understanding of potential fuel savings. Once in full operation, the Transport Alberta Training Academy will deliver works training, maintenance procedures, leadership skills and sustainable driving as part of its programme.

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## Our carbon footprint

Carillion's carbon footprint represents the total annual emissions of carbon resulting from our operations and activities.

We calculate and publish details of our carbon footprint annually. It covers direct (scope 1) and indirect (scopes 2 and 3) emissions for activities undertaken within the Carillion Group, across all geographical regions in which we operate.

Bureau Veritas has verified that the methodology applied to our carbon footprinting processes is considered to be robust.

### Carbon data measurement

Collating accurate carbon data metrics is a complex challenge for a diverse global business like Carillion. We have installed smart meters across our UK businesses to provide instant, accurate readings from the electricity, gas, and oil used to power our offices, site accommodation and construction contracts.

Fuel consumption is calculated on a vehicle-by-vehicle basis, and has improved since the introduction of telematics and fuelsaver technologies across our UK and Canada commercial fleet in 2012. See [Meeting our carbon targets](#).

We submit our data to CDP – an international not-for-profit organisation providing the only global environmental disclosure system. These insights enable investors, companies and governments to mitigate risks from the use of energy and natural resources and identify opportunities from taking a responsible approach to the environment.

### Our 2012 footprint

In 2012 we reduced our absolute carbon footprint by 53,948 tonnes, or 20% against a 2011 baseline. This reflects efforts across the business to reduce energy consumption and emissions arising from the operation of our facilities and vehicle fleet, as well as from employee business travel and from our clients and supply chain. See [Meeting our carbon targets](#).

For our UK Carbon Reduction Commitment (CRC) reporting, in the 2011–2012 compliance year, we saw emissions drop from 41,393 tonnes of CO<sub>2</sub> to 24,678 tonnes of CO<sub>2</sub>. While this significant reduction (41%) has made a positive contribution to our footprint target, it is largely as a result of structural and CRC reporting changes in the UK over this period.

We report on scope 1–3 emissions from the following sources:

#### Scope 1

- Gas – emissions calculated using kWh data from suppliers
- Commercial vehicles, company cars, plant fuel and business mileage – emissions calculated from fuel card returns

#### Scope 2

- Electricity from our offices and sites – emissions using kWh data from suppliers

#### Scope 3

- Rail travel – emissions calculated using data showing total distance travelled
- Air travel – emissions calculated using data for three categories (domestic, short haul, and long haul)

## 20%

reduction in our carbon emissions

Carillion UK is accredited to the Certified Emissions Measurement and Reduction Scheme (CEMARS) for measured, managed, and verified carbon emissions.



We report emissions to the CDP



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- Hotel stays – emissions calculated based upon a standard hotel stay of 48kg CO<sub>2</sub>e per person per night
- Paper – emissions calculated from total kg paper purchased and multiplied by CO<sub>2</sub>e factors provided by our paper suppliers
- Water – emissions calculated based on data showing total volume of water used (including some effluent data in MENA)

In 2012, we improved our Group-wide data collection by moving to Capture, a more accurate web-based system. This was part of a move towards gathering emissions data in-house, as we believe that this will give us a greater visibility of, and impetus to address, our performance, as we widen our scope 3 reporting.

The process continues to be verified by Bureau Veritas (see [Assurance](#)) and audited by Deloitte, who validates the data that we submit as part of the UK Government Carbon Reduction Commitment reporting scheme.

### Green energy procurement

In the UK, we procure Climate Change Levy-exempt energy across our businesses where possible. Where it is not, we buy energy from Combined Heat and Power (CHP) plants. We have a supplier partnership with Scottish and Southern Energy (SSE), the UK's largest generator of renewable energy. We now purchase all energy for our UK buildings through this route.

Within our Middle East business, renewable energy is a relatively new sector for the region, given the historic reliance on oil. However, the tide is turning and we are now installing solar photovoltaic panels at our head office in Dubai, showcasing our commitment to renewable energy and promoting our own energy services. For examples of our renewable energy services, see Sustainable solutions for our customers.

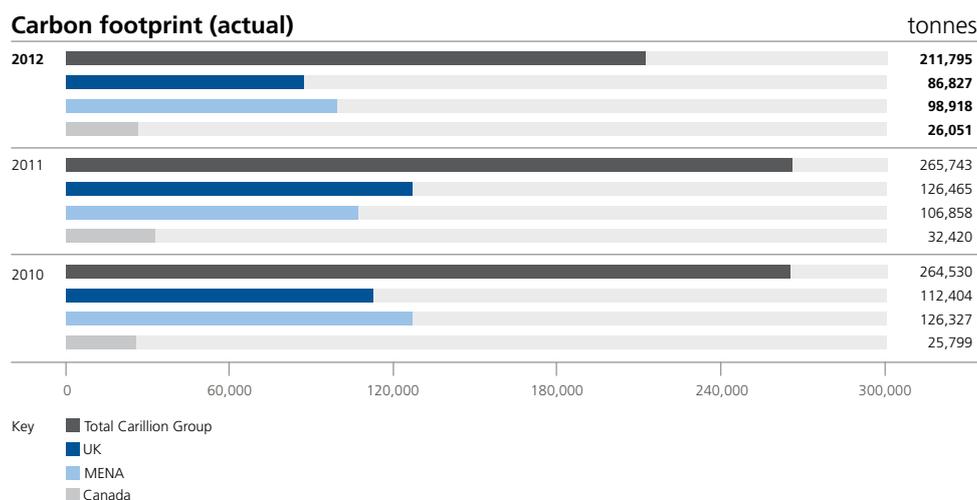
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## Performance data

Note: MENA stands for Middle East and North Africa.

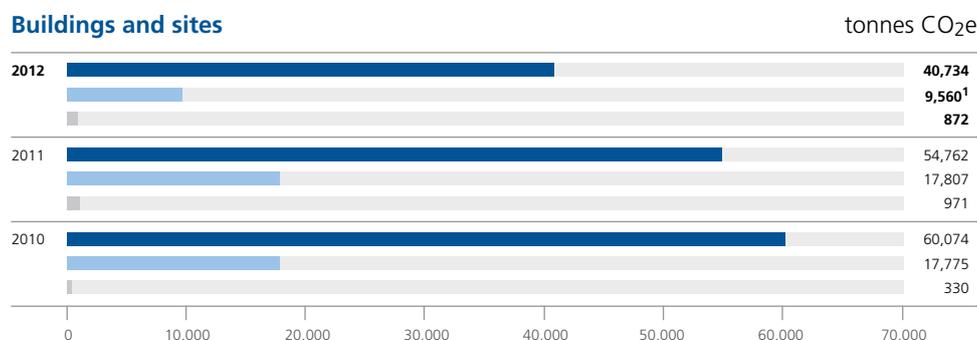


**Carbon footprint (normalised)** tonnes CO<sub>2</sub>e per £m

	2010	2011	2012	% reduction/(increase) from 2011
Total Carillion Group	53	52 <sup>1</sup>	48	7.7%
UK	29.3	35	26.6	22%
MENA	251.3	190.4	203.1	(16%)
Canada	39.6	41.4 <sup>1</sup>	40	3.5%

1. This figure has been restated as there was an error in the 2011 sustainability report where a calculation used incorrect revenue data.

### Carbon footprint by origin



1. This figure has reduced as a result of a change in energy billing through the camps that we manage.

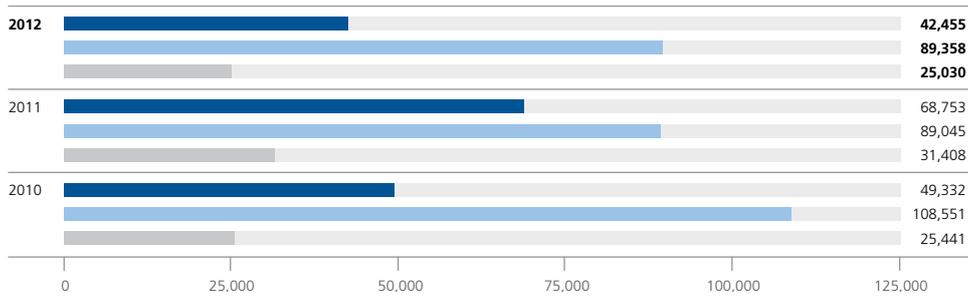
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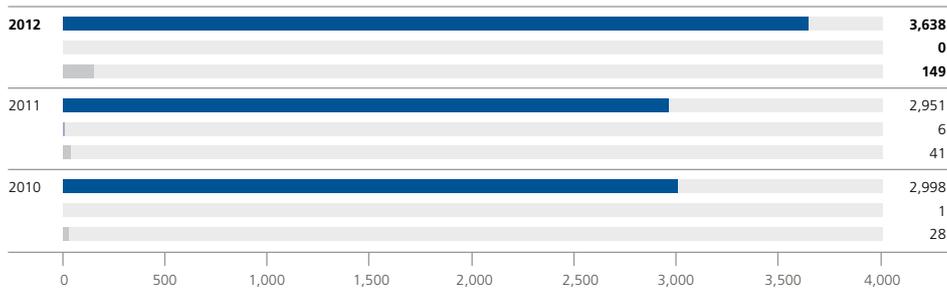
### Transport

tonnes CO<sub>2</sub>e



### Other

tonnes CO<sub>2</sub>e



Key  
■ UK  
■ MENA\*  
■ Canada

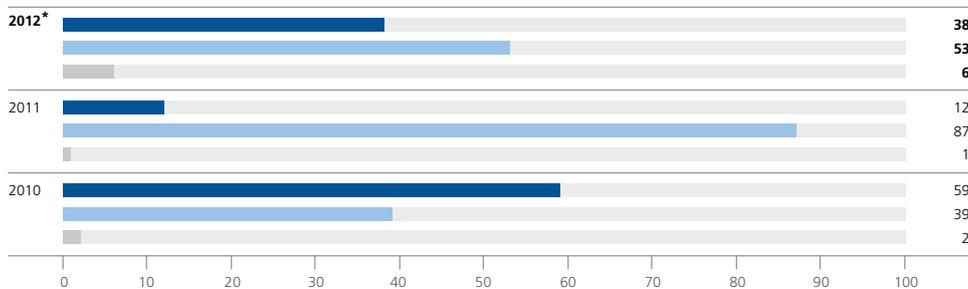
\* MENA business includes significant transport operations.

Carbon emissions data is gathered and reported every quarter by our independent energy department. Information gathered includes fuel, travel and energy consumption. Electricity and gas data is based on half-hourly meters or taken from invoices using meter readings, and is reported in kWh. Road vehicle fuel consumption is measured at pump and reported to Carillion from the fuel card providers. Plant fuel data is based on expenditure and unit costs.

We currently gather data for scope 1 and scope 2 emissions, as defined by the UK Government's Greenhouse Gas Protocol. Scope 3 covers indirect emissions from construction materials and their delivery to sites, facilities management services in client properties, and waste and water-related emissions from contracts.

### Contracts working towards BREEAM ratings (UK Construction)

%



Key  
■ Excellent  
■ Very good  
■ Good

\* 3% of projects working towards Pass and Outstanding ratings.