

Translink Carbon Report 2010/11



let's go together
translink.co.uk



Executive Foreword

Translink is one of the largest companies in Northern Ireland, with around 4,000 employees, and is the main provider of public transport services across Northern Ireland and cross border.

Public Transport is intrinsically a sustainable travel option. Its key objective is to take people out of private car onto public transport. In line with this, Translink's corporate vision is that:

“We will provide integrated travel solutions that are attractive, sustainable and good value.”

This vision immediately puts ‘sustainability’ at the head of our strategy and commits us to not only providing efficient sustainable transport solutions for the public but also in ensuring we minimise our own energy use.

In 2006 with rising energy costs and increased public awareness on climate change Translink identified a need to improve current energy management processes and began implementing a new strategy. This strategy consisted of 4 key areas:

- Commitment
- Resource
- Energy Audits
- Awareness Campaign

Introduction

The Translink Carbon Footprint is measured and reported in line with the Greenhouse Gas Protocol published by the World Business Council for Sustainable Development, World Resources Institute and Global Reporting Initiative.

It is based on direct fuel and electricity consumption from Translink premises and vehicle emissions according to the Greenhouse Gas Protocol. It includes emissions of CO₂ from:

Scope 1 (Direct)	Scope 2 (Indirect)	Scope 3 (Indirect)
Heating oil	Electricity	Business Mileage
Natural Gas		
Passenger Vehicles		
Support Vehicles		
Plant & Machinery		

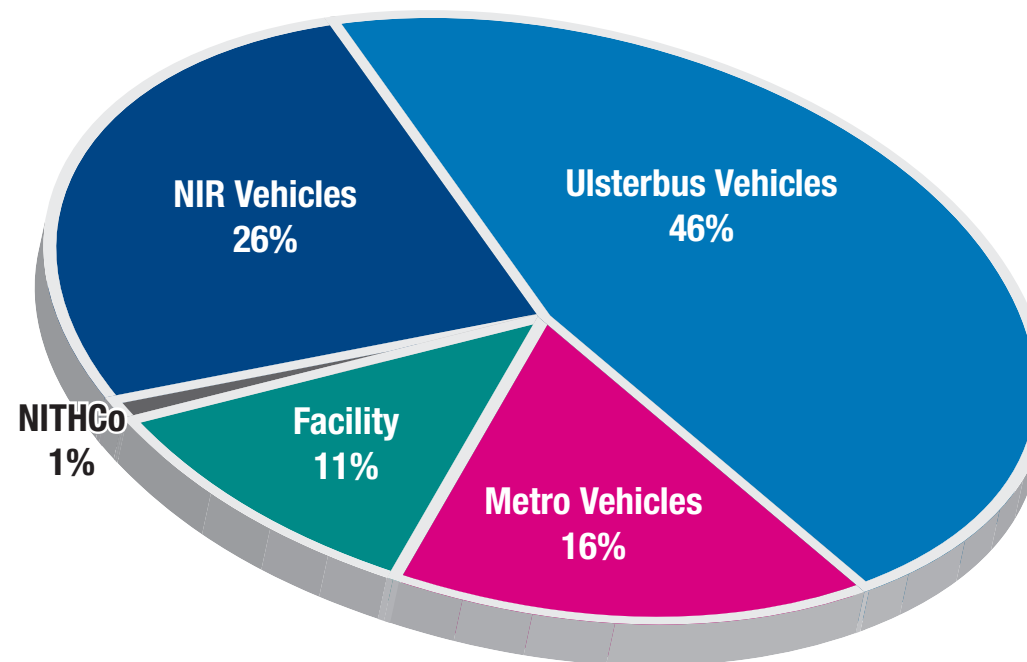
Sources of Translink Carbon Emissions 2010/11 (Tonnes CO₂)

Gross carbon emissions for Translink during 2010/11 were 111,260 Tonnes CO₂.

This is an overall decrease of 3% on the 2009/10 Carbon Emissions which was 115,184 Tonnes CO₂.

Figure 1 shows how this carbon is attributed to vehicle fuel and facility energy.

Figure 1



Change in Facilities Carbon Emissions

Figure 2 shows actual increase in carbon emissions compared to the previous year. However, when normalised for the extremely cold weather experienced in winter 2010/11, a de-facto decrease is indicated in Figure 3. When taking the weather and historical energy consumption into account the changes in facilities emissions would indicate a 3% reduction. Without energy reduction actions facilities emissions would have increased by 6%.

Figure 2

Change in Facilities Carbon Emissions (Actual)

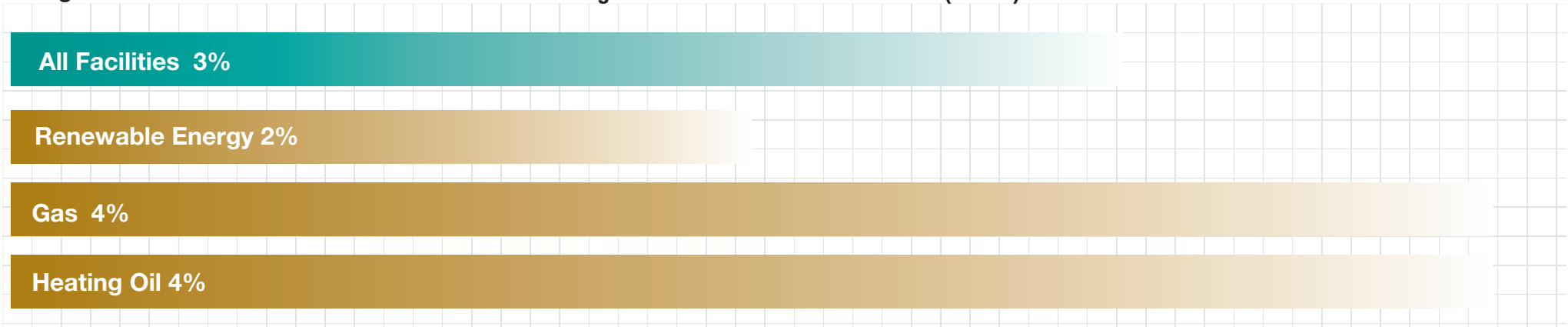
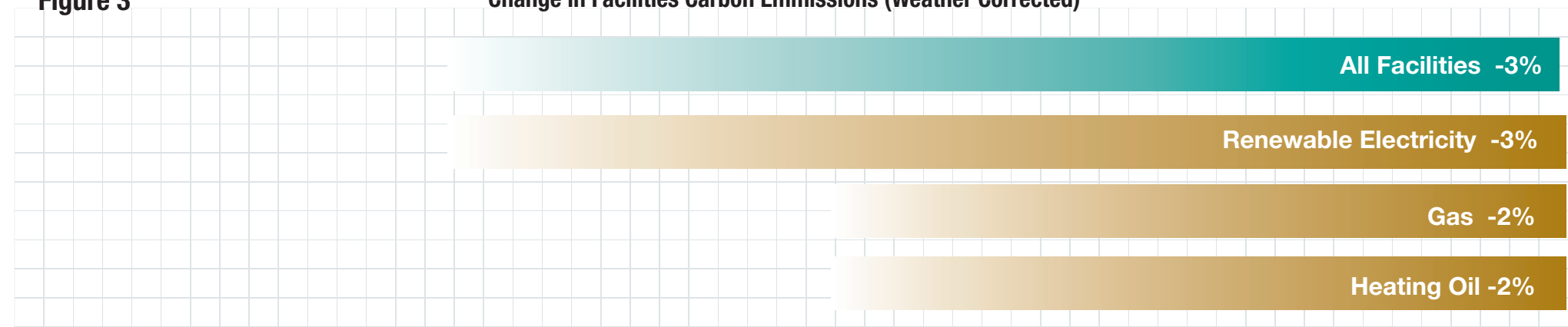


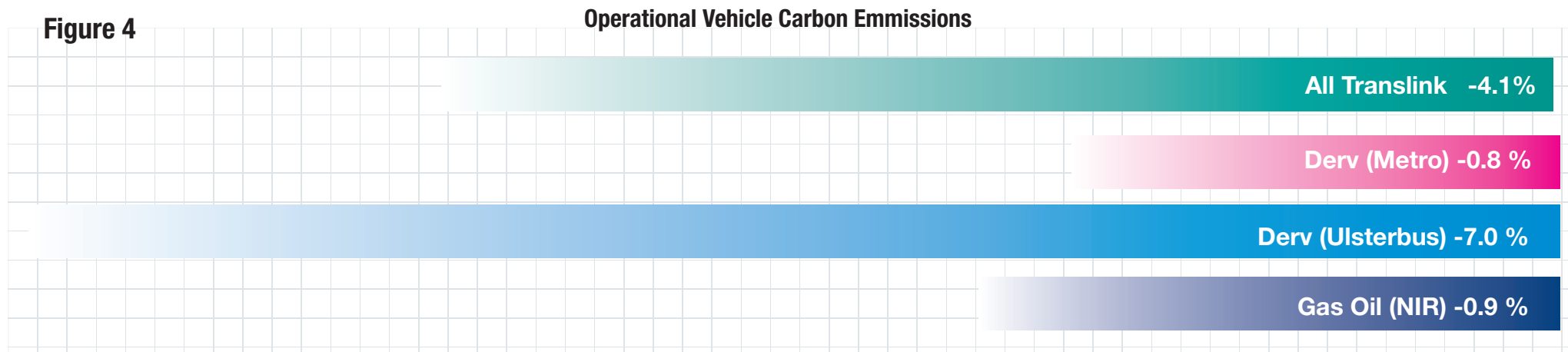
Figure 3

Change in Facilities Carbon Emissions (Weather Corrected)

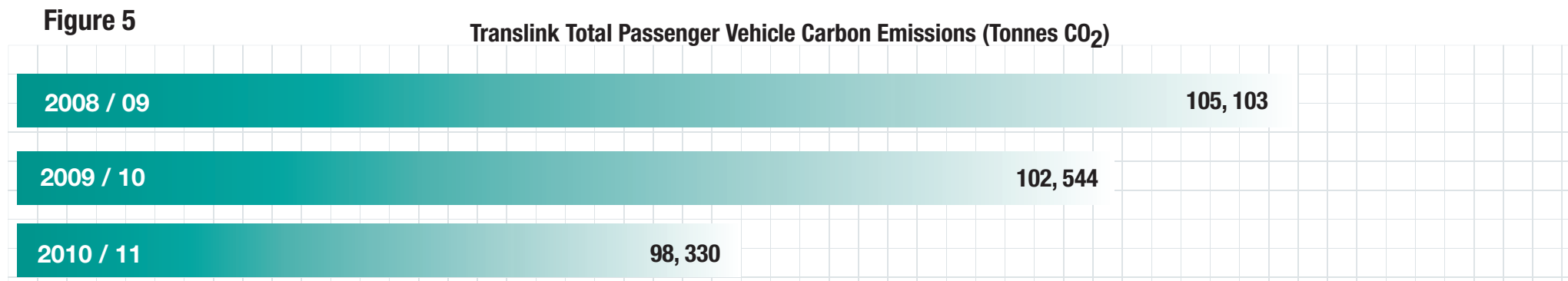


Change in Vehicle Carbon Emissions

Figure 4 shows how vehicle emissions have changed for the 3 operating companies. Ulsterbus demonstrated an overall improvement of 7% in vehicle carbon emissions while NIR and Metro showed an improvement of 0.9% and 0.8% respectively.



Translink have reduced overall passenger vehicle emissions annually for the last 3 years as illustrated in Figure 5. This is a reduction of over 6,700 Tonnes CO₂ over 2008/09 carbon emissions.



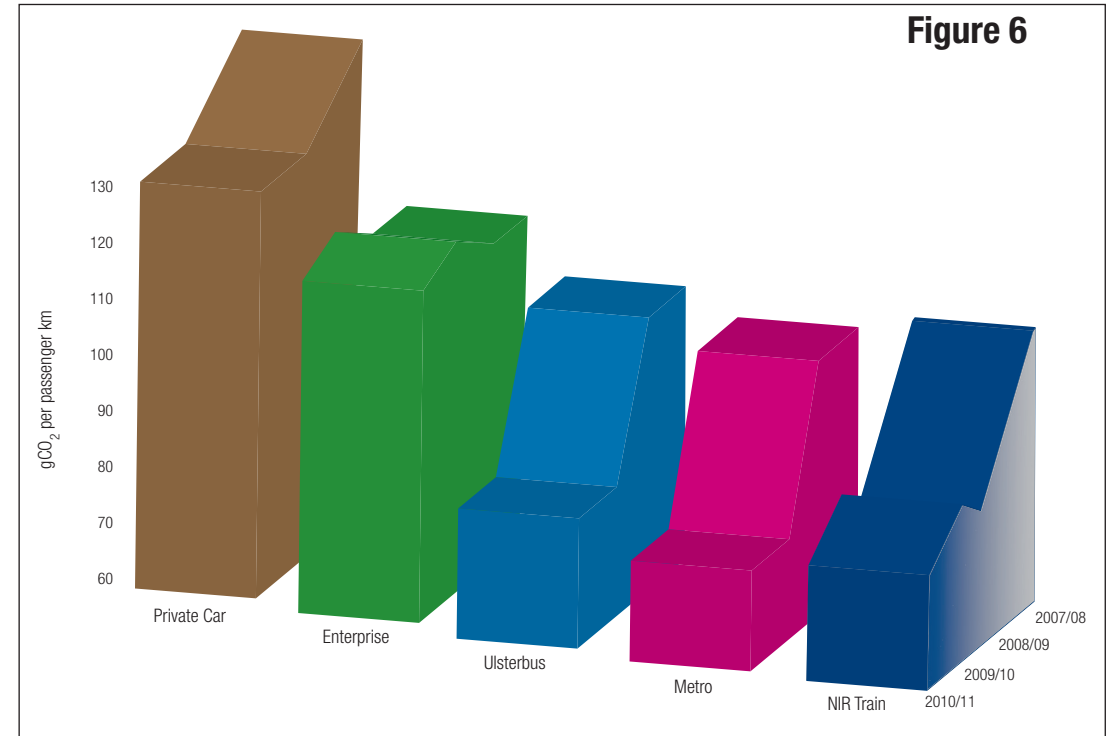
Passenger Carbon Emissions since 2007/08

Figure 6 and Table 1 shows the overall carbon emissions per passenger KM for each of the operating companies compared with car use and how they have changed since 2007/08.

Table 1

Vehicle Emissions (gCO₂ Per passenger KM)

	2007/08	2008/09	2009/10	2010/11
Private car (unknown fuel)*	126.7	126.7	126.7	129.3
NIR Train	85.5	73.7	82.5	78.9
Enterprise Train	98.4	104.1	116.8	116.2
Ulsterbus	93.6	95.6	85.5	81.7
Metro	89.1	91.6	73.7	74.5



N.B. Passenger KM is calculated based on figures of average journey length adapted from the “Travel Survey for Northern Ireland 2008-2010” and the number of passengers carried.


















*From Transport Statistics Bulletin – National Transport Survey: 2008 and DEFRA emissions factors.



Public transport carbon emissions have decreased slightly on a per passenger basis in the last year. There has been an increase in journey lengths for the bus passengers; however passenger numbers have fallen slightly. The average rail passenger journey is slightly shorter, whereas passenger numbers have increased.

As passenger numbers and average journey distances increase carbon emissions will fall on a passenger km basis, the opposite is also true.

Carbon Reduction Actions

Last year Translink identified several actions to reduce carbon emissions. Progress is shown.

1. Reduce facility CO₂ emissions by 10% by 2013. 
2. Improve vehicle fuel economy by 5%. 
3. Deliver Energy Awareness Workshops to key employees. 
4. Apply for (and achieve) the Carbon Trust Standard. 
5. Implement Idle Shut-down on an additional 300+ vehicles. 
6. Install latest energy efficient lighting at our depots. 
7. Continue working with energy action groups. 
8. Continue eco-driving training. 
9. Introduce targets for reduction in electricity use at key sites. 
10. Upgrade train driver simulator to assist with eco driving training. 
11. Implement a carbon calculator of our journeys for our website. 
12. Implement an eco-driving depot pilot. 
13. The class 4000 fleet will incorporate the following improvements;
 - Electrical power generation integrated with traction engine 
 - 10% more fuel efficient transmission than Class 3000 
 - 4-5 Tonne weight reduction on Class 3000 
 - LED lighting in place of halogen spotlighting using 75% less energy. 
14. Energy awareness campaign 2010/11 “Go Eco”. 

 - Objective met  - Objective partially met

Performance

Energy Management at key sites 2010/11:

Figure 7

Carbon emissions saved through electricity reduction at key sites (Tonnes CO₂)

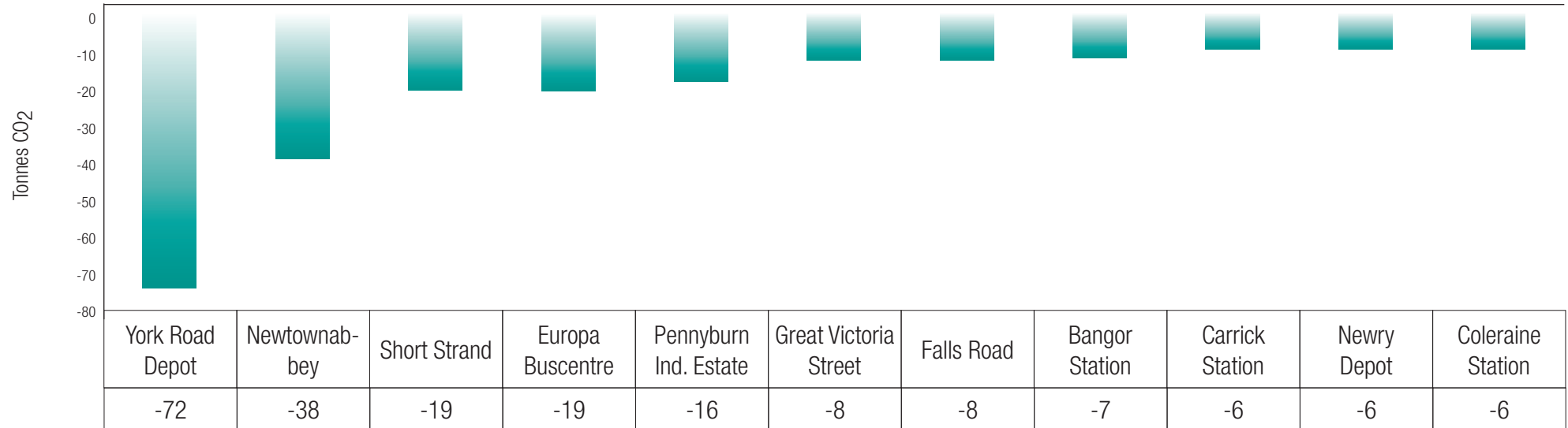


Figure 8

Gas reduction at key sites (Tonnes CO₂)

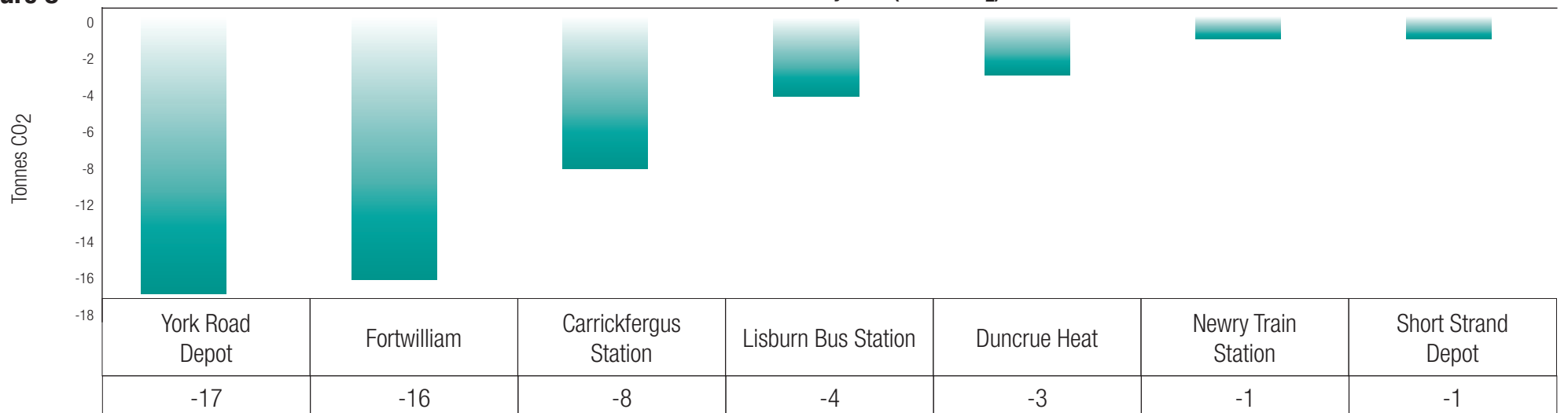
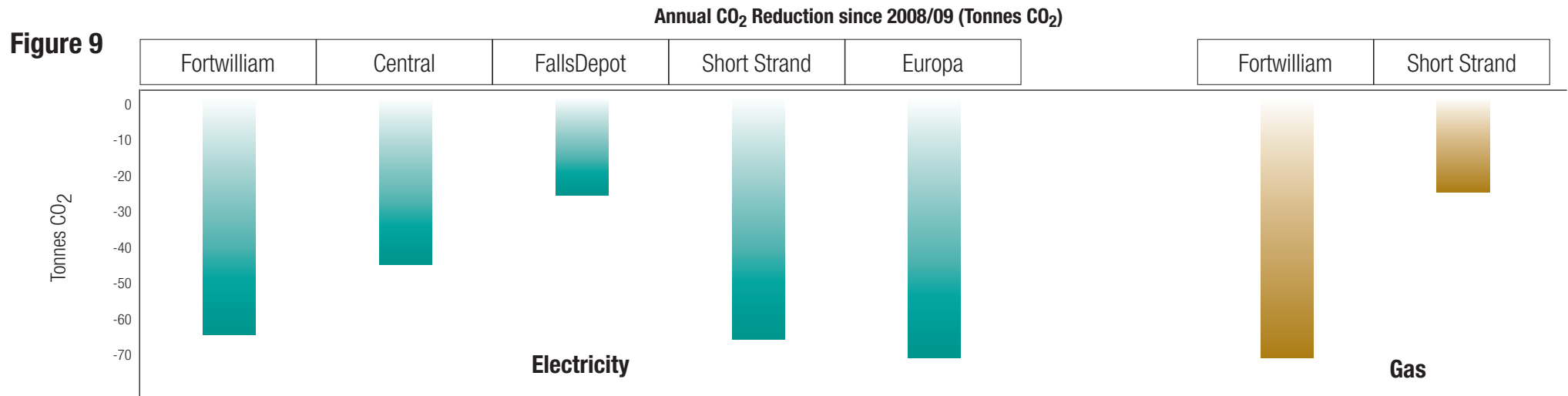


Figure 9 illustrates some excellent long term examples of improvement.



- Fortwilliam Train Care Centre reduced annual electricity consumption by 12% since 2008/09 saving 59 Tonnes CO₂ annually. Through improved management and control, annual gas consumption was also reduced by 29% since 2008/09 saving 66 Tonnes CO₂ annually.
- Falls Depot has reduced annual electricity consumption by 8% since 2008/09 saving 26 Tonne CO₂ annually.
- Central Station has reduced annual electricity consumption by 5% since 2008/09 saving 44 Tonne CO₂ per annum.
- Europa Bus Centre has reduced annual electricity consumption by 13% since 2008/09 saving 66 Tonne CO₂ per annum.
- Short Strand Depot has reduced annual electricity consumption by 19% since 2008/09 saving 50 Tonne CO₂ per annum. Annual gas consumption was also reduced by 11% since 2008/09 saving 27 Tonnes CO₂ annually.

Future Activity

Translink's Carbon Target is 15% CO₂ Reduction Per Passenger km by 2016"

To achieve this Translink has allocated circa £1.3 Million to;

1. Continue to deliver Energy Awareness Workshops to key employees.
2. Install latest energy efficient lighting at more of our depots.
3. Convert our heating systems to run on natural gas where available.
4. Continue working with energy action groups.
5. Continue eco-driving training.
6. Implement a carbon calculator of our journeys for our website.
7. Introduction of class 4000 trains.
8. Encourage modal shift from the private car.
9. M-Link- enable ticket purchase through mobile phone.
10. Roll out eco-driving system in Metro and Ulsterbus.
11. Develop an "eco-station" programme.

Awards

Carbon Trust Standard



Belfast City Council Belfast Business Awards 2010

‘Highly Commended’ for Best Green Business:

‘Highly Commended’ for Corporate Social Responsibility

Business in the Community Awards 2011 – Big Tick for Climate Change



Sustainable Ireland Awards 2010, Winner Best Energy Manager:

Mal McGreevy,
General Manager Rail

Arena Network “platinum”



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