

SPT Carbon Management Plan 2025

Date of meeting 23 June 2017

Date of report 1 June 2017

Report by Senior Director

1. Object of report

To recommend approval of the proposals contained within this report for an updated SPT Carbon Management Plan (CMP).

2. Background

2.1 Members will be aware that the Scottish Government, through the Climate Change (Scotland) Act 2009, set an 80% target for reducing carbon emissions by 2050 with an interim target of 42% reduction by 2020, based on 1990 levels. This provides a focus for every organisation in Scotland, including SPT, to work towards. In addition, SPT is required to comply with regulations such as the UK Government Carbon Reduction Commitment¹ and Scotland's Climate Change Public Sector Bodies Reporting Duties².

2.2 SPT has had in place, since 2008/09, a Carbon Management Plan and through this made significant progress³ in carbon reduction over recent years, delivering an 18.8% reduction by 2015/16. This has been achieved through a considerable investment in a number of initiatives such as utilising solar power and voltage optimisation at Buchanan Bus Station, an LED lighting upgrade on the Subway, and innovative initiatives such as the ground source heat pump at Broomloan depot which provides up to 40% of the heating load of the staff messing facility. In addition, in a number of Subway stations we have installed air source and water source heat exchange installation making use of the 12-14°C water and air temperatures prevalent in the Subway tunnels, this concept being developed and delivered through a Knowledge Transfer Partnership with Glasgow Caledonian University. Further areas that have contributed to the reduction include:

- rolling out a managed print service in SPT offices to reduce unnecessary printing;
- an IT software upgrade to reduce out of hours consumption on computers, and more efficient servers, including virtual servers;
- utilising technology to reduce business travel, for example, through more teleconferencing;
- diverting waste from landfill by increasing recycling rates;

¹ <https://www.sepa.org.uk/regulations/climate-change/carbon-reduction-commitment/>

² <http://www.legislation.gov.uk/ssi/2015/347/contents/made>

³ http://www.spt.co.uk/documents/sp150515_agenda5.pdf and http://www.spt.co.uk/documents/sp220814_agenda8.pdf

- reduced carbon emissions at SPT head office (131 St Vincent Street) through introduction of LED lighting and energy efficient heating boilers and controls;
 - introducing lighting controls at Shields Road Park & Ride;
 - limiting heat loss and installing energy efficient heaters at Broomloan depot; and
 - investing in a lighting upgrade programme at Buchanan Bus Station.
- 2.3 In light of the successes noted above, revisions to the UK Government’s grid electricity emissions factors⁴ and following the transitional period of SPT’s head office move from Consort House, West George Street to 131 St Vincent Street, a review of SPT’s carbon management plan has been undertaken. This has resulted in a proposal, set out below, that contains an updated vision, objectives and actions for a Carbon Management Plan to the year 2025.
- 2.4 It should be noted that the scope of the CMP relates to SPT’s operational activities including the Subway, bus stations and offices. However, there are further opportunities for SPT to promote reduced carbon emissions through the Regional Transport Strategy (RTS), which is the subject of a separate paper to this Partnership. While SPT is responsible for the development of the RTS for the west of Scotland, it is for SPT and many other partners to deliver. The current RTS has an Outcome of “Reduced Emissions”, and with the increased profile of this over recent times – e.g. air quality and the proposed Low Emission Zone – it is likely that carbon emissions reduction would be prominent within any new RTS. Other initiatives such as a commitment to carbon reduction in the procurement process and supply chain, and a more integrated approach to fleet/vehicle management will have additional positive impacts.

3. Outline of proposals

- 3.1 In considering the timeline and targets for the updated plan, careful consideration has been given to ensuring it represents a timeline whereby SPT operations are in a “steady state” to measure against and the target carbon reduction percentage is set at a realistic level, yet still sufficient to stretch the organisation to continually improve on its carbon reduction.
- 3.2 The most significant element that is likely to affect SPT operations carbon generation is related to the Subway and its transition to a new fully automated system. This programme of investment will provide the Subway with a new fleet of trains, fully automated signalling and control systems. The current target year for full operations in an Unattended Train Operation (i.e. driverless system) is 2021/22. However, the transition period from the current Subway operation to the new will effectively mean two Subway systems operating concurrently, which in turn is likely to mean, in the short term, an increase in energy use. Nevertheless, it is anticipated that the new Subway system will, once in full operation, be significantly less carbon intensive, leading to a long term reduction in energy usage and resultant costs. This context has therefore guided the timeline of the new CMP to ensure a future year (suggested as 2024/25) provides sufficient data to allow a meaningful comparison.
- 3.3 Members should also be aware that the grid emission factor, which is essentially a factor used to calculate carbon emissions from generation of electricity is outwith SPTs control. Fluctuations in this factor can work both for and against carbon emissions and therefore it is appropriate the timeline is of sufficient length to account for short term fluctuations.

⁴ The factors used to calculate carbon emissions from electricity usage.

- 3.4 Taking account of the work to date and factors noted above, it is proposed that SPT's Carbon Management Plan is updated as follows:

Vision - *"Through efficiency, innovation, and partnership, SPT's carbon footprint is minimised to the lowest practicable level achievable".*

- 3.5 Specific objectives -

"1. To achieve an overall reduction in carbon emissions"; and

"2. To embed carbon management within the culture and "day job" of the organisation."

- 3.6 Specific target:

"By the end of financial year 2024/25, SPT will have reduced its carbon footprint by 35%, based on 2008/09 levels."

- 3.7 SPT's current proposed Actions for Carbon Management include delivery of:

- Continued roll out of energy efficient lighting across our operations;
- New, more efficient rolling stock, signalling and control systems;
- A review of Subway Substations and a rolling programme of replacement/renewal with modern, more efficient parts/equipment;
- Upgrade, renewal or replacement of tunnel lining, rails, and pumping stations;
- Further energy efficiency improvements at Buchanan Bus Station (including new electrical distribution board, supporting infrastructure and smart metering);
- Broomloan depot improvements(including new electrical distribution board and supporting infrastructure);
- In general a roll out of smart metering across SPT operations to allow more intelligent interrogation and detailed measurement of consumption to allow more directly targeted improvements; and
- A refresh of the staff communications initiative, *"Second Nature"*, emphasising the importance of and opportunities for carbon reduction.

This list will evolve over coming years, and additional projects identified and delivered, subject to future Partnership approval and budgetary availability.

- 3.8 At a strategic level, the Carbon Management Plan 2025 will be delivered through the SPT Carbon Management Steering Group, which is chaired by the Chief Executive, who is also SPT's Carbon Management Champion. The CMP and associated target will remain 'live' in order to be able to adjust to changing circumstances, and progress updates will be reported to Partnership members on a regular basis.

4. Conclusion

- 4.1 Over recent years, SPT has actively developed and delivered initiatives which have helped to significantly reduce the operational carbon generation of the organisation by 18.8% from 2008/09 to 2015/16.
- 4.2 In line with the carbon reduction targets of the Scottish Government, SPT's proposed update to its Carbon Management Plan sets a stretching target of a 35% reduction by 2025.

4.3 Officers will continue to work towards reductions in line with this target and keep Partnership members updated on progress as well as ensuring legislative reporting to Scottish Government is undertaken.

5. Partnership action

The Partnership is recommended to approve the proposals within this report for an updated SPT Carbon Management Plan 2025.

6. Consequences

Policy consequences	<i>In line with the RTS outcome of “Reduced Emissions”.</i>
Legal consequences	<i>None identified within this report.</i>
Financial consequences	<i>Various projects and initiatives will continue to be brought forward within revenue and capital budgets in order to meet the proposed targets.</i>
Personnel consequences	<i>None identified within this report.</i>
Equalities consequences	<i>None identified within this report.</i>
Risk consequences	<i>No specific risks relating to the overall strategy. Each project will have specific risk management processes applied to their implementation.</i>

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