Alstom Carbon Reduction Plan

Supplier name: Alstom Transport UK Ltd

Publication date: 31st March 2022

Commitment to achieving Net Zero

Alstom Transport UK Ltd is committed to achieving Net Zero emissions by 2050.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2018/19	
Additional Details relating to the Baseline Emissions calculations.	
The historic baseline taken in 2018/19 was for Alstom Transport UK Limited. Alstom acquired Bombardier Transport in February 2020 and a new baseline is currently being established (2021/22) following the integration of the two companies and will be published within FY2022/23. The Scope 1 emissions are a combination of Gas used for heating and other activities within the UK and Alstom company transport. The scope 2 data is derived from Electricity use within our UK operations. The carbon emissions generated for electricity could be shown as zero although we have chosen to represent them using the local grid emission factor. The potential for a zero figure arises as Alstom purchases 100% certified green electricity from UK sources within the UK. The scope 3 data shown is derived from emissions for non-Alstom commuting vehicles. The elements included within our Scope 3 data are currently being collected and will be displayed in our 2022/23 submission. All emission data is calculated using the DEFRA emission factors for each scope type.	
Baseline year emissions:	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	5718.83
Scope 2	4140.57

Scope 3 **(Included Sources)**	32.97
Total Emissions	9892.37

Current Emissions Reporting

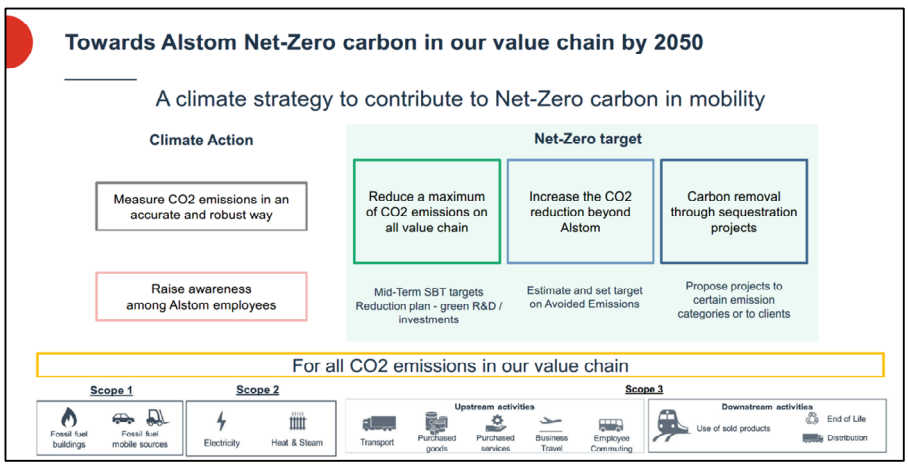
Reporting Year: 2021/22	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	4692.62
Scope 2	3031.27
Scope 3 **(Included Sources)**	50.691
Total Emissions	7774.58

Emissions reduction targets

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

We project that carbon emissions will decrease over the next five years to 6000 tCO_2e by 2030. This is a reduction of 40%.

Alstom has set a target of Net Zero within our value chain by 2050 and will achieve this using the model shown below.



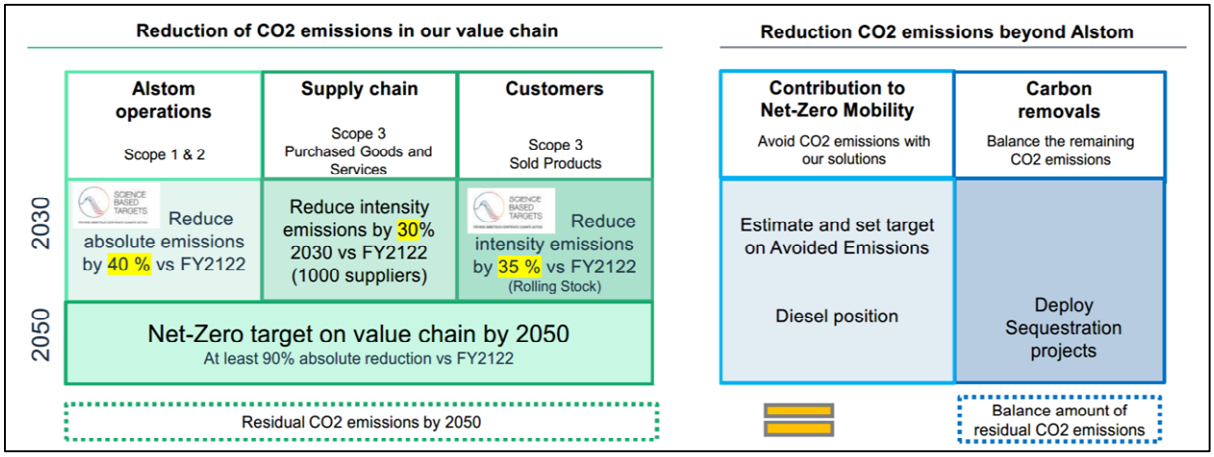
The Alstom interim carbon reduction targets - 2030 shown below are:

- Reduce absolute Scope 1 & 2 emissions by 40% against the new FY2022 baseline
- Reduce the intensity Scope 3 emissions of our supply chain by 30% vs FY 2022

The target for 2050 is:

- At least a 90% absolute reduction on our value chain for all Scopes vs FY2022
- Balance the remaining emissions through sequestration projects

Under Science Based Targets (SBTi) Alstom has made a commitment to make reductions required to keep warming to 1.5°C. Alstom is currently re-assessing the submission following the integration of Bombardier Transport into our UK activities.



Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2018/19 baseline. The carbon emission reduction achieved by these schemes equate to 2117.79 tCO_2e, a 21.4% reduction against the 2018/19 baseline and the measures will be in effect when performing the contract.

Alstom continues to operate a certified ISO14001:2015 Environmental Management System, to drive continuous improvement the Alstom 2025 AIM (Alstom in Motion) strategy has set a series of objectives centred around energy usage and carbon reduction.

In order to reduce the carbon produced by our facilities, Alstom has implemented the recommendations from our SECR and ESOS reporting and further carbon reduction initiatives are proposed to improve our carbon performance before 2025.

These include, but are not limited to:

- Alstom continues to purchase green electricity for all of our UK activities, since 2020 we have transferred our tariff to green electricity from UK sources. This contributes to a global Alstom objective to use 100% green energy throughout the Company by 2025.

- Alstom has streamlined its operations within the UK aligning our offices with our activities and reducing the number of buildings that we operate.
- Alstom has replaced the branded fleet with bespoke PHEV vehicles, these have reduced our carbon emissions by over 75g / CO2/km with charging points being installed as part of the lease package to further encourage our staff to maintain the charge.
- An overhaul of our company cars shows an average reduction of 35g CO2/km. Alstom is now able offer full electric cars at all pay grades enabling our staff to find the low carbon option which suits their travel patterns.
- The installation of charging points at our fixed sites is planned for 2022/23 and this will provide the infrastructure to reduce the use of fuel within our vehicles.
- Telematics will be fitted to branded vehicles to relay detailed carbon data and enable us to plan efficient routing and deployment of staff to limit the UK wide travel;
- Our project sites are transferring to fully electrified plant, removing the dependence on diesel;
- Satellite sites within our Signalling business unit have made the interim transfer to HVO (Hydrotreated Vegetable Oil) fuel to replace diesel within generators to power the site. Early tests have shown upwards of 90% reduction in carbon emissions as a result of the move. As solar options become more efficient, economic and available these will be utilised and will replace the HVO option where feasible.
- Alstom has undertaken a study to transfer our reliance from Portland cement products to lower carbon options such as GGBS or Chemfree. This will lead to a significant reduction in our emissions from civil installations on our Signalling portfolio.
- Our Wembley Traincare Centre has undergone an overhaul of its heating system to move from fuel oil to a far more efficient gas fed system (707,000kwh of energy savings per year). A full solar array has been fitted to the roof of the building which produces 215,000kwh/yr, this is 13% of the electricity usage at Wembley in 2019/20, the adoption of solar has achieved carbon savings (based on the 2019 emission factors) of 54tCO2e per year.
- During 2022 we will be advancing the Alstom global solar strategy within the UK. This will enable us to install solar panel arrays at strategically selected static offices to reduce our dependence on grid electricity. This contributes to the Alstom global target of 10% self generation of electricity from renewable sources.
- Opportunities for 2022/23 will see further ESOS recommendations applied to our sites and Alstom UK&I will undertake initial audits of our sites with a view to implementing an ISO50001:2018 Energy Management System for the first time.
- Continuing to replace existing lighting with LED alternatives throughout our facilities, increasing the efficiency and performance of our lighting systems;
- Improvements to heating, ventilation and air conditioning systems and upgraded building insulation and operational methods to reduce heat losses when trains enter

and leave our Traincare centres. This has seen a notable reduction in gas consumption.

In the future we hope to implement further measures such as:

- Full assessment of our Scope 3 emissions and inclusion within our annual reporting. We will set applicable targets in line with our global targets to reduce these within the UK.
- Further changes to our company fleet as new technologies reach market to extend the electric vehicle offering within Alstom.
- Explore the option of ground source heating to reduce the reliance on natural gas for heating our offices and depots.
- A reduction in Diesel use on our maintenance depots through replacement fuels.

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard[3].

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of the Supplier:

Simon Day (EHS Director)

Date: 31st March 2022

[1] https://ghgprotocol.org/corporate-standard
[2] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[3] https://ghgprotocol.org/standards/scope-3-standard