

ScotRail Energy and Carbon Strategy

Introduction

One of the key deliverables from the ScotRail Alliance is our commitment to carbon reduction. Scotland has ambitious carbon emission reduction targets and the railway contributes to delivering them. Our plans for electrification of the Edinburgh-Glasgow line, investment in energy saving initiatives at our stations and depots and our Environmental Innovation Fund, are examples of how we are playing our part.

Rail travel is amongst the lowest carbon modes of transport. However, 93 million passenger journeys from 354 stations, supported by 10 Depots still leaves a substantial carbon footprint and we are committed to reduce the energy required for every passenger journey. Through the following strategy, we will make a contribution to meeting Scotland's carbon reduction targets set out in Climate Change legislation.

We use electricity and diesel to power our trains. We refer to this as traction energy.

Our stations consume electricity, gas and oil to light, heat and power our buildings. We refer to this as non-traction energy.

Although most staff travel can be achieved using trains, we still require to operate road vehicles to support our operations, to get staff to their locations before and after the first and last trains and to get our passengers to their destination in exceptional circumstances. We refer to this as business transport energy.

Energy management is a key component of our Environmental Management System. Our energy management system is compliant with ISO50001 standard, which we use to guide continual improvement through the "Plan – Do-Check-Act" process.

Objectives

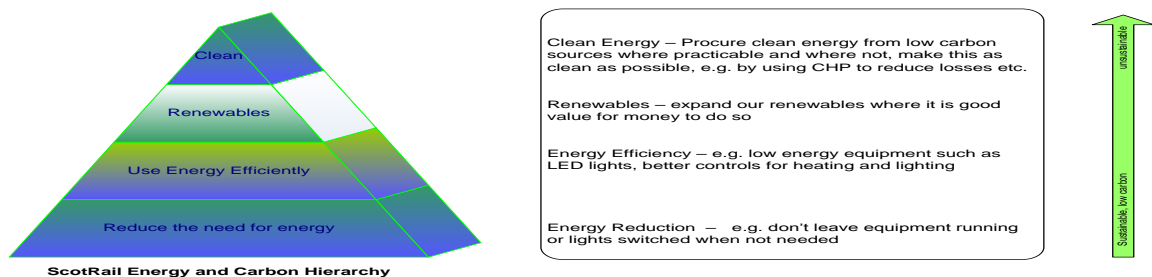
Our primary objective is to reduce the energy consumed in conducting our operations, which will as a consequence reduce our carbon emissions. A secondary focus is to reduce carbon emissions using low carbon fuels and technologies where this is cost effective.

Strategy

We follow the principles of the energy hierarchy in developing plans to reduce consumption by eliminating waste and by making well researched, informed interventions to reduce energy consumption by increasing efficiency. We will monitor the effectiveness of these measures through regular review of energy performance against improvement targets to ensure we achieve continual improvement. Our business change process is designed to control the additional energy consumption and carbon emitted from improving and growing our business.

Substantial carbon reductions can be achieved through changing to a lower emitting fuel and the large scale electrification of our network will provide both energy and carbon savings. For non-traction and business transport energy, we will invest in changing the fuel type where cost effective to do so.

The above measures encompass our stage 1, 2 and some stage 3 carbon emissions and we plan to publish our carbon footprint annually to demonstrate continual improvement.



We will review opportunities to expand our renewable generation portfolio where this is a cost effective option.

Energy Reduction Plans

Our energy reduction plans cover three main types of intervention with some examples shown:

1. We will reduce the need for energy – No cost measures

We will avoid waste through encouraging our teams to spot wasted energy and identify opportunities where investment in energy efficiency can be made.

We will support energy users at all our locations in their efforts to use less energy. Information will be available to our colleagues through communications, visualisation boards, performance reviews and involvement in workshops to improve performance. We will adopt best practice from the rail industry and beyond, adapting and improving it to suit our business.

2. We will use energy more efficiently. – Low cost measures

Using our business change process, we will ensure that rolling stock and buildings operate as efficiently as possible, using energy efficient equipment appliances, lighting, fans and pumps and heating equipment.

3. We will use energy more efficiently. – Investment level measures

We will make strategic investments to replace major energy consuming assets with more efficient and low carbon alternatives. This will be carried out on a prioritised and cost effective measures and includes such assets as installing Driver Advisory Systems (DAS) on the remainder of our fleets, replacing lighting with more efficient and controllable LED luminaires and inefficient boiler plant and obsolete automatic control systems.

Two additional approaches are included in our plans

4. Where fossil fuels use is needed, we will use these as cleanly and efficiently as we can.

Where practicable, we will source energy from an assured “green source.” We will also review cost effective opportunities to expand our embedded generation (Combined Heat and Power systems) capacity and reduce carbon through changes in heat source.

5. Modal Shift and Transport Integration

Through providing additional services and facilities as well as continuously improving our service quality, we will encourage the use of rail over other higher carbon transport modes to support the overall reduction of transport related carbon emissions.

Transport integration is at the heart of ScotRail Alliance’s strategy of caring about the whole door-to-door journey. This in turn will contribute to Government’s objectives of stimulating economic growth; by improving connectivity and addressing better environmental outcomes by giving people a viable alternative to the private car.

Our initiatives to improve transport integration includes the encouragement of active travel with improved provision of cycle facilities at stations and the roll out of Bike & Go cycle hire at key stations. A further measure to improve low carbon onward travel options is the promotion of Plus Bus integrated ticketing scheme with bus operators available in approximately 20 towns and cities across Scotland.

Our plans are formally reviewed by our senior management across our business, in line with our Energy and Environmental Management Systems.