ScotFLAG Carbon Reduction Sub Group

A subgroup of ScotFLAG has been tasked with considering what the freight transport industry can do to help achieve the target of a 42% reduction of carbon dioxide emissions by 2020 and a 80% reduction by 2050

The freight transport sector needs to accept that the Climate Change agenda will prevail in the longer term. Therefore there is a need to identify the changes that will be required rather than just respond to them. Businesses need help to develop appropriate solutions to optimise performance and environmental goals.

Throughout this period road transport will remain the dominant, most accessible mode of freight transport. But this means it will have the greater part to play in contributing to climate change targets.

To meet the challenge of climate change will require investment in

- Restructured supply chains. Much thought needs to be given to this. The, in some ways understandable, reaction that condemns the importation of foodstuffs from developing nations by air in preference to growing at home disregards the carbon footprint of the producer. It may be that the carbon footprint of a packet of green beans flown from Kenya is smaller than a packet grown in UK. Recent work suggests that New Zealand apples have a lower carbon footprint than domestically grown ones. There does, however, need to be an agreed method of carbon footprint calculation before the question can be answered definitively.

- More efficient operations and modes of transport. The use of consolidation centres is a fairly young concept but is looking at using out of town consolidation linked with delivery by environmentally friendly vehicles to final destinations is worth considering. Although it may sound fanciful at the moment any new large retail park might be designed so that deliveries could be made by underground conveyor belt type delivery systems. The possibility of tram and light rail use should also be considered.

- New, low-carbon technologies, yet to be developed. The current design of electric vehicles merely replaces the diesel engine with an electric motor and the fuel tank with batteries. A ‘back to basics approach might be more productive in the longer term with a rethink of the design and build of the means of moving goods. The power source for the production of recharging electricity is something that is worth addressing. Beyond that fuel cell technology is also in its infancy and will develop.

In the **long term** the solution lies in the development and adoption of a low-carbon replacement for the heavy-duty diesel engine as the prime motive power source for freight transport.

In the **medium term** greater use of rail and short sea shipping offer opportunities that will need innovation, investment and mass marketing in order to succeed. In the case of sea we need to remember that many ships use heavy oil for propulsion rather than diesel. This is a particularly dirty fuel in terms of particulates.

The **short term** opportunities lie in greater fuel and journey savings from existing operations. More work is required into bio fuels including methods of production that

do not harm the potential for food production. The increasing use of light vehicles for home delivery and, indeed, longer haul must be considered.

A more complete analysis of the potential savings, practical consequences and cost-effectiveness of different reduction strategies needs to be developed to better inform future planning and decision making in business and in Government.

Industry considers that the role of Government, both national and local, is to provide the right incentives that encourage businesses to make investments in new, often risky and often speculative technologies. This requires consistency of policies and long-term vision.

Business needs to better understand the opportunities available in:

- Night-time deliveries. Quieter vehicles and methods of delivery mean that mean that the window of opportunity can be moved away from busy times and reduce congestion.

- Fewer just-in-time deliveries. The question of whether the use of the Just in Time delivery philosophy needs to be reassessed in the light of the need to reduce emissions.

- Consolidation and load-sharing opportunities. Many operators are already involved in co-operative ventures. More opportunities undoubtedly exist.

But these opportunities are often dependent on local government, in particular, developing policies that will allow these developments. Many curfews imposed at the time developments were awarded planning permission are now outdated but local authority planners are very reluctant to consider changing them in the face of vociferous objections from local residents. Elected members are also unwilling to support relaxations even in the face of demonstrations of much reduced noise and air pollution by delivering at off peak hours. Several demonstration projects have shown the benefits of night time deliveries and the noise abatement society have been involved with this progress. Perhaps some leadership from National Government might help.

A carbon reduction initiative with potential EU funding is being developed and we hope to have a presentation at the ScotFLAG meeting on 31st March 2010.