

THE REIGATE SOCIETY Transport Sub- Committee.

REPORT No. 24 An appraisal of
The CLIMATE CHANGE Act 2008. Carbon Tax Inflation and Transport Logistics.

1.0 OBJECTIVE;-

To review some of the implications of the Act. Identify potential benefits and problems.
To consider options and seek some areas where compliance with the Act may present economic benefits.

2.0 GENERAL;-

In discussions different views were expressed and some of the points made are listed below;-

- I. The year 2050 seems to be distant and is unlikely to be of concern;- (the Act calls for a series of five year programmes, annual reports, review of progress made and action that is recommended to obtain compliance).
- II. The UK is relatively small and other Nations do not appear to be taking similar or effective action.
- III The anticipated rise and expansion of Populations and the associated need for growth to sustain employment is seen as a major part of the carbon emission problem
- IV Some considered that global warming is associated with our Solar system and is not controllable.
- V It was suggested that Aviation emissions placing water vapour high in the upper atmosphere presents a major part of the global warming problem and appears to be ignored by the proposed international control system.
- VI Some proposals to restrict carbon emission and traffic flow may in fact increase rather than reduce carbon emission and at the same time reduce growth and employment prospects.**
- VII. There was a general consensus that personal transport is now established as part of our culture and will be given a high priority by all even if this involves other economies and personal budget reductions. The hope was expressed that advances in battery technology and electricity supply (perhaps laser fusion, hydro or tidal) will help to resolve the problem presented by the rising price of fuel.
- VIII It was generally accepted that mineral oil resources are finite as far as logistics are concerned but some were aware of the advantages / disadvantages of the Hydrogen option for Heavy Road Transport

3.0 The CLIMATE CHANGE ACT 2008. (CCA);-

3.1 The objective and Target of the CCA is the reduction of greenhouse gas emission and

ensure that the UK carbon account for the **year 2050 is at least 80% lower than the 1990 base line.**

Providing stringent requirements are met it is possible to amend this target or base line year.

To ensure that the Target is achieved the CC Committee is required to prepare 5 year programmes and submit annual reports -(www.theccc.org.uk)- on progress and action recommended to the Secretary of State and Parliament. The CC Committee can appoint consultants and advisers to assist in the execution of the duty defined by the CCA in schedule 1.

Schedules 2 and 3 of the CCA set out details of the Administrators powers to approve trading schemes and ability to enforce how payments are to be made or traded or expended with the provision that expenditure should not exceed income receipts.

DOMESTIC WASTE :- Part 5 of the CCA - sections 71 to 75 and schedule 5 deal with domestic waste reduction and the recycling of recoverable waste products.

Section 78 of the CCA and Schedule 7 deals with the administration of Renewable Transport Fuel obligations.

3.2 The “ SUSTAINABLE TRAVEL CITY” ;-

It is noted that the planned “Sustainable Travel City” project has been withdrawn. The conurbations in question have Ring Roads but presumably the risks and costs -including carbon costs- of implementing the projects proved to be unacceptable.

COMMENT (A);- It is noted that in the case of Reigate and Redhill the suppression of traffic flow on the A23 and A25 still stands as an option even though there may be a risk to business growth and employment. There is no plan for a Ring Road at present although the population is scheduled to increase within the local LEP areas.

3.3 CONSTRAINTS :- Carbon emission and Population Growth;-

It is reported that the world population has grown from 2.5 billion within a lifetime to 7 billion today and is predicted to rise to 10 billion plus by 2100. Of all the views expressed and listed in the opening paragraphs of this document the carbon emission associated with world population, food and transport needs present a problem that requires urgent attention.

3.4 Those who were sceptical about the connection between Climate Change and Carbon emission accept that mineral oil resources are likely to be in short supply in the future and alternative solutions need to be sought.

COMMENT (B);- The Reduction of Transport CO2 emission Objective;-

It is suggested that parochial and historical business practices be reviewed and considered as options for reintroduction in an attempt to provide employment, reduce costs, congestion, and carbon emission associated with long haul logistic traffic.

4.0 OPTIONS for CONSIDERATION;-

4.1 The HGV TRANSPORT PROBLEM;- (Transport of materials)

In the past transport of building materials was expensive and products were sourced locally, Examples being the clamp burning of bricks using carbonaceous clays and local timber at locations adjacent to proposed building sites. Ironstone, Ragstone, limestone, Hearthstone, chalk and sand has been quarried for local use.

Sand / lime brick production was carried out adjacent to rail sidings at Redhill.

Today the hauling of building blocks, timber and roofing tiles, plasterboard, cement, concrete and other products vast distances from European and more distant manufacturing sites might be considered for carbon emission reduction.

Iberian granite is specified for London squares and developments. Heavy materials including coal are sourced elsewhere and transported by sea and road.

It may be beneficial if consideration is given to the reopening of local industries to reduce transport costs, carbon emission and provide employment. However there may be arguments against local industrial and housing development and an attempt to find solutions to that problem is addressed below.

4.2 LOCAL SOURCES of ENERGY for a growing POPULATION;- At present the only known source of local energy is that of gas and coal, the local water mills and wind mills having almost ceased operation after 1945. The suggestion that wind farms be provided as a source of local energy may be shown to be uneconomic for an inland southern community. See report by STUART YOUNG Consultants for the John Muir Trust -a Scottish conservation charity- indicating that over the two year period of the study the average output was only 24.08 % of capacity.

5.0 PROVIDING NEW HOMES;-

In the provision of housing for our rapidly growing population, the Climate Change Act presents a range of constraints, problems and a major challenge that needs careful consideration.

Work places, homes, business, schools, retail, open spaces medical and recreation facilities need to be provided as in a new town. But in addition consideration has to be given to the quality of life, the need to export goods and services to meet the costs of essential imports of food, fuel, goods and services that cannot be provided locally.

All these facilities require an adequate and safe transport system with easy and low cost access to Ports for the export and import of products.

5.1 The location of these development areas is defined by the presence of ;-

A local energy power source,- to minimise electrical transmission losses-(ie. Gas, Hydro, Tide, Wind, Wave or Solar etc.),

A supply of fresh water (other than by desalination plant at 8 kWh /m³), adequate gravity drainage systems and waste disposal facilities all located above the flood plain or a minimum of 10 m above the sea level.(which is rising at the reported rate of 3 mm per year.)

5.2 Comparative Transport costs

An approximate Estimate of Energy consumption required to move one ton- km.

Rail--0.05 kwh; Ship--0.1 to 0.15 kwh; HGV ---1.1 kwh; Air---1.6 kwh;

6.0 The CCA and TRANSPORT ;-

COMMENT (C) ;- It is suggested that Consultants, Advisors, and Partners be asked to consider the objectives and implications of the Act when preparing reports on the whole life cost benefit value for money evaluation of proposed Projects.

In particular the following Scheme types might be the subject of review;-

6.1 The nationally adopted policy of Traffic suppression ;- Involving, the removal of designed roundabouts, the provision of traffic signal schemes designed to reduce and discourage use of the Highway. Consideration being given to the CCA objectives, carbon emission, employment and the following;-

*Delay costs and fuel consumption whilst waiting.

*The extra time and costs needed to complete a scheduled Bus route.

*The carbon emissions produced by Logistic transport and others when braking and restarting heavy loads .

*Pollution.

*The carbon emission associated with the removal of the existing structures and the replacement with new.

*The energy and annual maintenance cost of new signal schemes.

*The adequacy including width and strength, safety, and diversion length of alternative routes.

*Cost benefit and return on funds expended..

6.2 The long term carbon emission advantages / disadvantages of ;-

Replacing Traffic signal schemes where space is available by a free flowing designed roundabout

*The items listed above in paragraph 6.1.

6.3 The carbon emissions at Road junction tables and humps ;-

*The items listed above;

*The carbon emissions, noise and pollution associated with braking and acceleration that occurs at each obstruction.

*The increased damage / maintenance to the Highway, vehicle suspension and tyres.

*Vibration damage to adjacent structures and buildings.

6.4 The carbon element of Street Parking Charging Proposals;-

*A review of local business needs

*A review of Off street / On street parking facilities

*The various systems available and their carbon content.

*Do the proposals obstruct the footway, the carriageway and is there any projected traffic delay / accident risk whilst vehicles carry out the parking manoeuvre.

*Whole life costs, Value for money and the CCA.

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7.0 The Transport Subsidy, (CAR and personal transport);-

Bearing in mind the views expressed in paragraph 1.0 VII above, the fact that there is a policy of encouraging low emission or electric powered vehicles and our anticipated population growth, combined with the need for employment, growth and export orientated income. There appears to be a need to design and provide an efficient, safe and free flowing transport network .

The Question then arises as to how travel can;-

(A) Be made as efficient as possible .

(B) Be reduced and or unnecessary journeys eliminated.

7.1 (A);- “ Another way to reduce fuel consumption is to reduce congestion. stopping and starting, speeding up and slowing down, is much less efficient way to get around than driving smoothly. Idling in stationary traffic is an especially poor delivery of miles per gallon.” --an extract from Sustainable Energy - without the hot air. By David MacKay--.

7.2 (B);- Is there a solution in Recent History ? ;-

Traffic flow was growing moderately in the early 1970's but expanded rapidly thereafter. What was the change that made this possible? A rising standard of living of course but as far as personal transport was concerned there was the benefit of relatively low fuel prices combined with the widespread introduction of the **leased car and van.**

7.2.1 Previously the journey between home to the work place was at the individuals personal expense and has never been “ tax deductible“, vehicles including cars were purchase and insured by the owner driver. When necessary a car allowance was paid and a limousines might be available to Directors etc at the Work place, marked vans being provided for others when required.

7.2.2 In the case of the Leased Company or corporation car scheme and after the tax on the benefit has been paid there is a very strong incentive to use the vehicle on all business and social occasions.

7.2.3 As the lease schemes expanded long distance road commuting grew, communities objected to high speed through traffic. Road Tables and Humps were the result. The introduction of the larger 4 X 4 vehicle provided more status but was also found to help deal with the inconvenience of Road Humps, Tables and Potholes.

7.3 Within the objectives of the Act it may be necessary for the leased car to be progressively withdrawn as fuel shortages develop and prices rise. This in turn may effectively reduce vehicle and engine size, speed, distance travelled, encourage more careful driving, and the use of more economical vehicles.

The operational life of the vehicle may be extended reducing the amount of carbon used in manufacture, transport and improve our balance of trade as far as imported vehicles are concerned.

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