



# CARBON BUDGET

Ensuring essential entitlements to energy for everyone  
whilst guaranteeing that the UK meets its target of  
80% emissions reduction by 2050.

**I**N THESE TIMES of climate emergency, peak oil, economic turmoil and biodiversity devastation we are told again and again that large-scale problems require large-scale solutions – that we must channel our efforts into bigger, better global agreements to address these challenges.

As a young man searching for my calling in life, I was being led in this direction until I attended the ‘Life After Oil’ course at Schumacher College and heard David Fleming utter a sentence that brought me up short: “Large-scale problems do not require large-scale solutions – they require small-scale solutions within a large-scale framework.”

At the time this was a radical new concept to me, but the more I considered it the more obvious it became, and the more it transformed my perspective. For example, I realised that while it is tempting to think of a tightening global cap on emissions as a solution in itself, such a cap is meaningless without on-the-ground solutions at the local and individual level.

The true challenge lies not in the essential process of agreeing a cap, but in transforming our society so that it can thrive within this limit.

So now that the UK government (and President Obama) have agreed to an 80% emissions reduction by 2050 the focus must shift to implementing national frameworks that can engage communities in the transition to a lower-carbon society. At present the UK government has over 100 policies that impact on emissions levels but has produced, in the words of the Parliamentary Environmental Audit Committee, “a confusing framework that cannot be said to promote effective action on climate change”.

We need a clear, focused framework for reducing emissions in the kindest

way possible, and this is what the Tradable Energy Quotas (TEQs) scheme – developed by Fleming over the past twelve years – provides.

TEQS IS AN energy-rationing scheme designed to cover a nation’s whole economy, within which individuals would receive an equal per capita entitlement of electronic TEQs units, free of charge. Organisations, the government and all other energy users would have to buy their units at auction. Each TEQs unit allows the purchase of a set quantity of fuel or electricity, dependent on the lifecycle emissions associated with that energy source. This ‘carbon rating’ provides an incentive to purchase renewably generated energy, since it requires fewer units.

The number of units issued in total is limited in line with the national carbon budget, which decreases over time.

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The system thus both assures essential entitlements of fuel and energy for everyone and, crucially, guarantees that the overall carbon cap is respected.

The purchase of goods other than energy (food, furniture, and so on) does not require the surrender of TEQs units, since the producers of those goods have already surrendered units for the energy used in their production. Producers then pass on the cost of buying these units to consumers, who simply find that certain goods (those produced in a more carbon-intensive manner) cost more and hence have a competitive dis-

advantage. In this way, all emissions in the economy are covered by the TEQs scheme, since energy is necessary to doing any kind of work.

Rationing has acquired a bad name due to its association with shortage, yet it is a response to shortage, not the cause of it. Combining the necessary reductions in the use of high-carbon fuel with the depletion of global energy resources is sure to put increased pressure on energy supplies, and in times of scarcity we cry out for guaranteed fair shares. The purpose of TEQs is to share out fairly the shrinking energy/carbon budget, while allowing maximum freedom of choice over energy use. In the absence of such a framework, we are currently seeing ‘rationing by price’ (i.e. the richest get whatever is in short supply), which creates massive inequity and attendant resentment.

The reasons for making TEQ units ‘tradable’ are twofold. First, prohibiting the exchange of rations in the past has always led to substantial black-market activity, unnecessarily criminalising otherwise law-abiding individuals. Second, energy demand differs from food demand: while we all require comparable amounts of food, certain vocations intrinsically require more energy. For this reason a non-tradable equal entitlement would simply destroy many professions. With tradable rations those who live within their TEQs entitlement can sell their surplus onto the market, rewarding their energy-thrift and increasing the supply for those who need to purchase additional units. Since the poor use less energy than the rich, the scheme would also be redistributive.

THE REAL BEAUTY of the scheme though is that it provides the large-



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TEQs price providing a clear indicator of how well we are doing.

This co-operation is essential, since the transformation in infrastructures necessitated by climate change requires collaboration between the different sectors of society, united in a single scheme easily understood by all. It is a critical feature of TEQs that it encourages constructive interaction between households, businesses, local authorities, transport providers, national government, and so on. In short, the scheme is explicitly designed to stimulate common purpose in a nation.

We may often be tempted to hold fossil-fuel companies and governments responsible for all our ills, but it must be recognised that even if they wished to they could not solve our energy problems without the engagement of the wider public. Our individual and community lifestyles need transformation too, and this cannot be done for us. No system can ever relieve us of our personal responsibility, and it is essential that we all recognise the need to change the way we live.

It is becoming ever clearer that current levels of consumption in the UK cannot truly be 'greened'; they must be reduced. Done right, this reduction process could lead to a better quality of life for all. There are environmental limits, and respecting them is not optional.

TEQs provide the essential framework for this process, and once it is in place we can focus on the human-scale changes that could actually save our world, safe in the knowledge that our

individual teardrops are no longer lost in an ocean of apathy, but are combining into an empowered – and sufficient – wave of change. 

**For more information on TEQs please visit [www.teqs.net](http://www.teqs.net)**

Shaun Chamberlin is the TEQs Development Director at The Lean Economy Connection and a member of the UK's Department of Energy and Climate Change Advisory Group. He is author of *The Transition Timeline*, published by Green Books.

scale framework to encourage and empower those small-scale solutions. It effectively converts the national carbon budget into a personal energy budget for everyone, with the clear recognition that this budget will be decreasing year on year. The variations in the national price of TEQ units would be of interest to all, and since lower demand means lower prices the population would be encouraged not only to reduce their own energy use, but also to urge others to do so. Additionally,

the substantial income from the auction of units to organisations would be accessible to communities to fund the building of new local infrastructure or otherwise support their energy transition.

It would be transparently in the collective interest to work together in finding ingenious ways to increase low-carbon energy supplies, reduce demand and move towards the shared goal of living happily within our energy and emissions constraints, with the