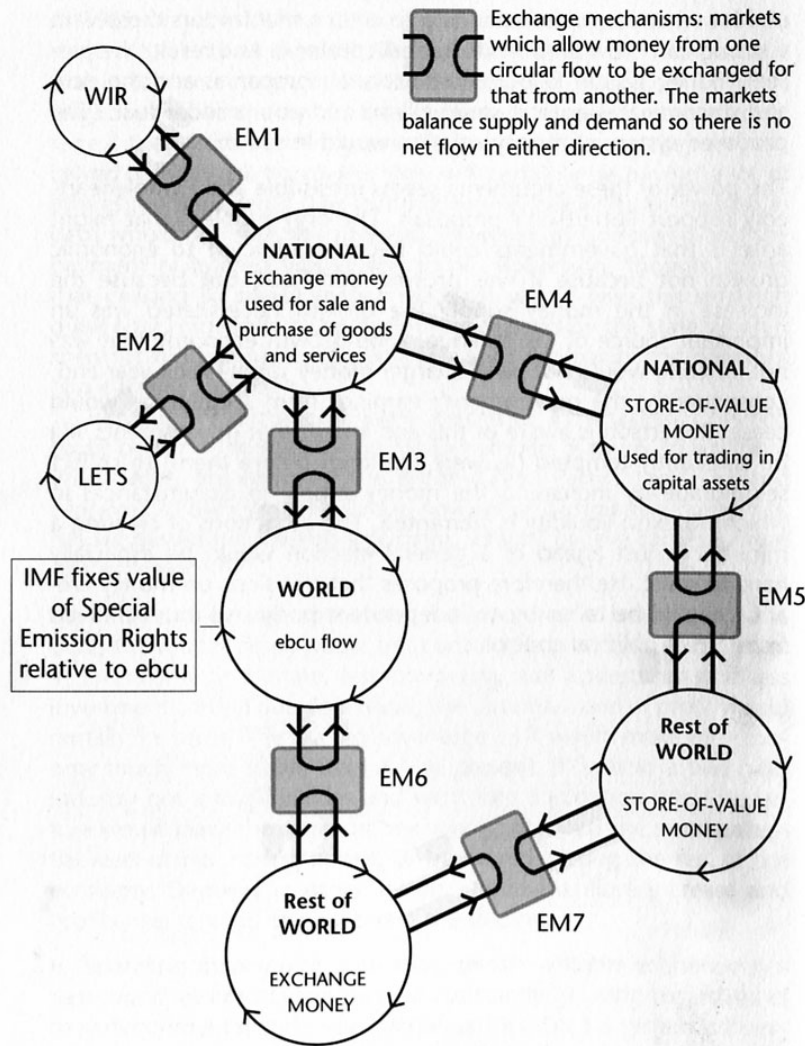


Energy Currencies by William Shepherd

An early draft of this essay first appeared as a four-part series of blogs in [April 2006](#)

Multiple Currency Systems

Energy currencies were first suggested by Buckminster Fuller in connection with his *One World Island Global Electricity Grid* but have taken on new life in recent years as the *Global Commons Institute* in London has seen the possibility of using *Special Emission Rights (SERs)* and *Domestic Tradable Quotas (DTQs)* to support their *Contraction & Convergence* agenda. This primer on *parallel currencies* is based on *The Ecology of Money...a Schumacher Briefing* by Richard Douthwaite. The diagram below sums up his ideas



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Here is the key to the diagram.

- EM1 - people with earnings in a *Wirtschaftsring*-type system exchange them for the national exchange currency.
- EM2 - members of a *Local Exchange Trading System* exchange *LETS* units for the national exchange currency.
- EM3 - ensures that flows of money from imports and exports balance each other.
- EM4 - allows people with exchange money to swap it for store-of-value savings money.
- EM5 - balances capital flows in the store-of-value currency into and out of the country.
- EM6 - composite of all the EM3-type exchanges operated by the rest of the world.
- EM7 - balances the flow of money into and out of savings for the rest of the world.

The current *Debt-Usury Financial System* is seriously flawed. But it does what it was originally designed to do...it maldistributes money and it finances wars. As a result those who benefit from the system have ensured that a network of international central banks and their *handmaidens* the commercial banks have taken over the world of money.

Double-entry bank book-keeping and the *King and Country* money system misruling the world started by ruling the waves when some old ideas, re-emerging in Amsterdam in the mid-17th century, were refined by *Huguenot* bankers into a coherent system. The *Houblon Brothers* brought the ideas to the *Dutch and English Courts* and in 1694 *William of Orange* incorporated them into *English Law* by giving a monopoly to the *Bank of England Corporation*.

Issuing & Lending Money

100 years ago Silvio Gesell was bemoaning the ignorance of his contemporaries about *The Money Mechanism* as Thomas Robertson refers to it in his 1947 classic *Human Ecology*. Richard Douthwaite in *County Kerry*, Tom Greco in *Tucson Arizona*, James Huber in the *Netherlands*, Anton Pinschof in *Morlaix Brittany* and James Robertson in *Chorley Oxfordshire* make up a significant percentage of this generation who understand such matters. The rest of us struggle. But it has not always been so.

Money literacy waxes and wanes. But at all times and in all civilized countries a few rich and intelligent men have built up *Nobility Systems* by which, under some name and by some contrivance, the few are enabled to live upon the labour of the many. These ruling classes have had many names...kings, lords, priests, fund-holders...but all are founded on deception and maintained by power. The people are persuaded to permit their introduction under the plea of public good and public necessity. As soon as they are firmly established they turn upon the people, tax and control them by the influence of monopolies, the declamation of priest-craft and government-craft, and in the last resort by military force.

Money can be created by three groups in society...commercial institutions, governments and users. Douthwaite thinks the job should be done by non-profit organisations representing the users. The money we all use is asked to play too many roles. One is as an international currency...like gold in the 19th century before the collapse of the gold exchange standard. Another is as a national currency related to the international currency. However four-fifths of monetary transactions in towns and cities are between the people who live there. They need a plethora of currencies which like *LETS*, the *Wir* and the commodity-based currencies are created by their users to mobilize untapped resources. Most user currencies would be geographically-based but some would link communities of interest.

There are powerful forces intent on retaining the current *Debt-Usury Financial System* we all use to keep afloat. *The Peace Parties* needs its own money. It will be defeated before getting started if it relies on the *War Party*. Quasi-governmental commercial currencies like the *dollar* provide a *means of exchange*. But they need a priesthood to create, destroy and manipulate money and with their fingers in the till it is not surprising that they cream off as much as they can get away with for their personal and private use. Another problem is that *debt-usury currencies* do a very poor job as a *store of value*...even though it is this that our pensions, savings and peace of mind depend upon.

Tom Greco has concluded that the *means of exchange* function invariably conflicts with the *store of value* function and cautions *LETS* designers against combining the two. What is needed is a currency for spending and another for saving. Between the 1950s and the late 1970s the *Sterling Area* did quite a good job in this regard as there was effectively capital sterling and consumption sterling. People moving capital out of the *Sterling Area* had to buy whatever currencies they needed on a special market at a special exchange rate. This is one of the key ideas in Richard Douthwaite's proposals in his *Schumacher Briefing on The Ecology of Money*.

But Douthwaite's *Four Currencies System* is wrapped around another idea. On 15th August 1971 President Nixon took the US off the gold standard which set currencies fluctuating at the beck and call of market whims. Hedge funds love this but the biggest hedge funds of all...*Government Central Banks*...hate to see their domestic economies jerked around by private speculators. So they have been in continuous conference about a new *Bretton Woods*.

Richard Douthwaite is also dismissive of the current floating non-system and wants to fix it with an energy currency. Two hundred years hence the current *Debt-Usury Money* will have been swapped out for something better. But nothing will happen this side of *Crash* unless thinking people take an active interest in *Money Reform Theory* and the *Politics & Philosophy of Money*. Getting the labour unions onboard is one place to start. Renewed interest in *The Philosophy of Money* by George Simmel published in 1901 might also be a sign of a new *Monetary Revival Movement*.

Kilowatt-Hour as Global Reserve Currency

Three years ago *Fourth World Review* published a long essay of mine entitled [Energy Wars](#). The main thrust of the article was that piping energy around the place made sense to monopolists and elites intent upon controlling and profiting from the demand for piped energy. But for the rest of us local energy catchment...the [Working Strategy](#)...was the way to go.

In arguing my case I remarked on the dwindling importance of oil in the future of piped energy. Putting ignorance and cock-up aside...despite the fact that these loom large on the international stage where miscalculation seems to be the norm...this means that the *Anglo-American* grab for Iraq's oil was an insufficient justification for the costs of an invasion and the maintenance of a permanent presence in Mesopotamia. Think of the people, the money and the energy costs. Wars use up an awful lot of energy. The *Iraq War* energy account might even be in net deficit.

Hence I argued that the real reasons for the invasion of Iraq were not oil but the extension of the techniques of *Central Banking* into the *Moslem World* and of course to shore up the *State of Israel* by more direct means than hand-outs from the long-suffering American taxpayer. Confirmation of the latter has recently come to light with the

publication of the Walt and Mearsheimer report on *The Israel Lobby and US Foreign Policy*. Incidentally in case you took my [earlier remarks](#) about this for an *April Fool* the lads from *Harvard's John F Kennedy School of Government* have written a short version for [The London Review of Books](#).

But my case also rested on my review of the future development proposed by energy producing industries in the fossil fuel business, the nuclear fission and fusion fiascos and the more hopeful worlds of hydrogen and solar energy (wind, wave, biofuels etc). It was in this context that I mentioned Buckminster Fuller's proposal in his 1981 book *Critical Path* of a *Global Electricity Grid* and the emergence after its construction of the *Kilowatt-Hour* as the *Global Reserve Currency* to take the place once held by gold. Here is what Bucky had to say in *Critical Path* (page 206).

'It is engineeringly demonstrable that there is no known way to deliver energy safely from one part of the world to another in larger quantities and in swifter manner than by high-voltage-conducted 'electricity'. For the first half of the twentieth century the limit-distance of technically practical deliverability of electricity was 350 miles. As a consequence of the post-World War II space programme's employment and advancement of the invisible metallurgical, chemical and electronics more-with-lessing technology, twenty five years ago [now fifty] it became technically feasible and expedient to employ ultra-high-voltage and superconductivity which can deliver electrical energy within a radial range of 1500 miles from the system's dynamo generators.'

To the *World Game* seminar of 1969 Buckminster Fuller presented his integrated, world-around, high-voltage electrical energy network concept. Employing the new 1500-mile transmission reach, this network made it technically feasible to span the *Bering Straits* to integrate the *Alaskan USA* and *Canadian* networks with *Russia's* grid, which had recently been extended eastward into northern *Siberia* and *Kamchatka* to harness with hydroelectric dams the several powerful northwardly flowing rivers of north-easternmost *USSR*. This proposed network would interlink the daylight half of the world with the nighttime half.

Fuller argued that electrical energy integration of the night and day regions of the earth would bring capacity into use at all times, thus overnight doubling the generating capacity of humanity because it will integrate all the most extreme night and day peaks and valleys. From the *Bering Straits*, *Europe* and *Africa* will be integrated westwardly through the *USSR* and *China*; *Southeast Asia* and *India* will become network integrated southwardly through the *USSR*. *Central* and *South America* will be integrated southwardly through *Canada*, the *USA* and *Mexico*.

Bucky's idea is a dream-come-true for the lovers of macro-engineering projects. But it has two fundamental flaws. Firstly security. The power line will always be down somewhere. How can anyone stop the *Global Electricity Grid* being blown up by *insurgents*?

Secondly who needs it? The underlying energy truth is that the energy commons is not for privatising. Energy is not a scarce resource. In half an hour our world gets all the energy it needs for a whole year. Nature is prolific. The sun showers us with thousands of times more energy than we will ever need. The only energy pipes we truly need are within our village or parish electricity and hot water grids. All the other energy being piped around is not for the benefit of the users but for the profits of the pipe owners and the energy commodity monopolisers.

International Monetary Fund Bank (IMFB)

A reader of my *Energy Wars* article asked whether the world electricity grid was the only way that an energy-backed currency could work. My answer was no. Energy currencies can evolve from within our existing energy and monetary infrastructures. The idea is gaining support from various quarters.

In *The Ecology of Money* Richard Douthwaite discusses the thinking behind *Energy Backed Currency Units (ebcus)* and *Special Emission Rights (SERs)* and argues that 'an international currency should be based on the global resource whose use it is highly desirable to minimize'. Actually he doesn't argue this but merely states it. So this is a premise. Bear that in mind. Douthwaite then picks up the old *Limits to Growth* argument from forty years ago.

Economic growth needs piped energy, piped energy and economic growth produce pollution and pollution brings economic growth to a shuddering halt. The structure of Jay Forrester's *System Dynamics* model for his *World Dynamics* modelling ensured that collapses were suitably dramatic...good visual effects. With me so far? This is where *Global Warming* enters the argument. But first a cautionary note.

Nearly everything about climate change, global warming and carbon emissions is either an assumption based on pretty dodgy science or a computer projection based on pretty dodgy parameters and incomplete theories. *Global Warming* is not caused by all piped energy but by bad piped energy...let's call it *BPE*. *Gross National Product* is an arithmetic sum of *goods* and *bads*...and hence pretty meaningless...so goodness knows how the economists will cope with these *BPEs*. But that is their worry and not ours.

Enter the *Global Commons Institute* and their *Contraction & Convergence* agenda. *We The World* can stop *Global Warming* dead in its tracks, they claim, by reducing global *carbon dioxide* emissions. Think ration books in the *Hitler*

War and coupons for *Carbon Dioxide Emissions*. Hey presto! You've got yourself a scarce resource. And a scarce resource is just what is needed for an international currency. Hold on to your hats. We are nearing the currency link.

In New York seven years ago a book was published entitled *Kingpins of Carbon: How Fossil Fuel Producers Contribute to Global Warming*. It included the interesting fact that 80% of the fossil carbon that ends up as man-made carbon dioxide in the earth's atmosphere comes from only 122 producers of carbon-based fuels. So the idea is that someone somewhere guesstimates how much *Carbon Dioxide* can be emptied into the atmosphere each year and expresses these annual emissions as *Ration Book Coupons*. This is what then happens to these coupons.

The *Competent Receivers* of these *Carbon Emission Coupons* sell them to the *Gang of 122* who receive them in addition to cash from big users such as the electricity companies and the oil and coal merchants. This forces the wicked polluters to pay an arm and a leg for all the foul fumes they spew out into the atmosphere. This leads to shareholder profits plummeting and so they pull their money out and invest in profitable new carbon-free technologies like the 600-year old *Windmill Business* and the 60-year old *Nuclear Fission Steam Kettle Industry*.

So far so good. But you got there before me. Who? Whom? Who hands out these coupons to whom? The current ideas doing the rounds talk about half of them going to ordinary people as *Domestic Tradable Quotas (DTQs)* so we can pay our energy bills with them instead of paying in cash. Someone has already designed the credit cards. The other half get auctioned off like the *3G licences* for mobile phone companies. Economists from the *University of Chicago* have proved that auctions are an efficient way to allocate scarce resources. So that's alright then.

You were there before me again. Who decides? And what happens to the money? The *Global Commons Institute* has worked out how to put the *International Monetary Fund* in charge. The *IMF* would assign *Special Emission Rights (SERs)* to national governments every month, issue the *energy backed currency units (ebcus)* and fix their value relative to the *SERs*. Then *The Great and The Good* would spend the money on noble causes like renewable energy development and energy conservation. If your mind is wandering in the direction of *Lottery* and *Arts* funding and sees the *Her Majesty's Treasury* at every turn you may feel a little sceptical about the whole scheme.

I wrote earlier of *Nobility Systems* and their pernicious and pervasive nature. They were not my words but those of Amos Kendall who served in President Andrew Jackson's cabinet. Kendall went on to write in the *Washington Globe* on 13th December 1832 that 'the United States have their young *Nobility System*. Its head is the *Bank of the United States*; its right arm, a protecting Tariff and Manufacturing Monopolies; its left, growing State debts and States incorporations'.

The full story of what happened next is in *The Age of Jackson* by Arthur Schlesinger...an age when money was politics and monetary literacy was high and diffused throughout society. President Jackson removed Government deposits from the national private banking monopoly in a skilfully choreographed move that William Cobbett was later to call 'one of the greatest acts of his whole wonderful life.' It is a tale for our time.

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