

World Petroleum Energy Crisis and Fareless Urban Mass Transportation: Buying Time and Solving the Transportation Quagmire at the Same Time

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If a frog is placed in a pot of water that is slowly brought to a boil in such a way that the imperceptible heat change is not noticed by the frog, then it will not jump out of the pot. If a frog is dropped into a pot of boiling water, it will immediately jump out. In which state are we traffic-choked, urbanite frogs?

Only 1.08 trillion barrels of petroleum reserves are left on Earth (World Oil Journal 2005), and only one new barrel is found for every four used. With over 31.03 billion barrels consumed annually worldwide (2006) and rapidly increasing, there is less than 25.4 years left. Then it's all gone! Of the 48 petroleum-producing countries, only 15 can supply their own internal needs; the remaining 33 must supplement their internal needs with imports. The US domestic reserve supply is only 22 billion barrels (US imports 66% [2006] of its annual consumption, and this percentage is rapidly increasing), and if there were no imports, US oil would run out in less than THREE YEARS (7.5 billion barrels consumed annually – 25% of the annual world consumption)! The US transportation sector alone consumes two-thirds annually (5.03 billion barrels), and the US fleet of 243 million highway vehicles (2005 data) uses 4.0 billion (53 percent of annual US consumption).

Clearly, a sustainable energy source must soon be found to replace the impending worldwide petroleum exhaustion. Undoubtedly it will be solar, but MUCH TIME is needed to develop the technology for this transition. The most effective means for buying time is by drastically reducing the use of petroleum in the transportation sector. Since most (over 90%) of highway vehicle petroleum use is in urban regions (= regions with a population of at least 50,000), it follows that the solution is the implementation of very extensive urban mass transit systems. Even if there were an INFINITE supply of petroleum, it is critical that urban mass transit must be used to eliminate our ubiquitous urban traffic quagmire (24/7 gridlock virtually everywhere in the US, and especially in California and the LA region). Urban mass transit is the only logical method that can vastly reduce urban highway petroleum usage, thereby buying critical time for solar technology development, and that can eliminate the traffic quagmire, simultaneously (see below: FUMT system; it can reduce traffic volume in the urban regions of the six counties of Southern California region [SCR], of California, and of the USA by 90%!).

In the current urban transportation crisis situation, there is:

- (1) enormous waste and a staggering exhaustion of the rapidly diminishing nonrenewable petroleum resources on Earth;
- (2) unhealthful air quality, resulting in death and impaired health for tens of thousands, and contributing heavily to global warming and pollution;
- (3) pervasive 24/7 gridlock traffic conditions resulting in millions of wasted hours daily by millions of passengers;
- (4) high accident occurrences, resulting in death and injury and extensive, expensive property damage and medical costs for tens of thousands;
- (5) staggeringly expensive vehicle insurance, maintenance, operational and acquisition costs for the hundreds of millions of licensed drivers who own hundreds of millions of vehicles;
- (6) enormous road/street maintenance costs and waste of fossil energy for road construction and maintenance;
- (7) ubiquitous parking space/parking lot congestion and expense for millions;

(8) unhealthfully high and constant noise pollution, especially damaging to those in the vicinity of freeways and main roads.

The implementation of the FARELESS URBAN MASS TRANSIT SYSTEM (FUMTS) solves the aforementioned problems. This system provides an optimum model for any large urban region. The features of FUMTS will now be described (go to "<http://www.scfs-la.org/>" and click on "National and Global Problems of Our Age", sections on World Petroleum Depletion Crisis and Fareless Urban Mass Transit - author John Bachar - for the complete detailed analysis).

(1) No fares will be charged to any user. FUMTS will be financed by a net-wealth tax on the upper 1% of the appropriate adult population, so that 99% of the citizens will bear no cost. (In California, the wealthiest 1% of the California adult population has over \$2.5 trillion in net wealth; in the US, the figure is \$25 trillion).

(2) In SCR, 30,054 buses would comprise FUMTS at an annual cost of \$6.58 billion; in the urban regions of California, 54,522 buses are needed at a cost of \$11.9 billion; in the US, 395,430 buses are needed at a cost of \$86.6 billion.

(3) In California, the wealthiest 1% of the adult population would be assessed annually only 0.48% of their net wealth to yield the required \$11.9 billion; in the US, the figure is only a 0.35% assessment to yield the required \$86.6 billion.

(4) Annually, for the SCR, California and USA urban cases:

(a) The cost of FUMTS is only 8.43% to 9.01% of the current cost of the essentially all-auto mode (only 2% of all passenger travel is by public transit)! For every \$1 spent for the FUMTS mode, the average motorist spends \$11.10 to \$11.80!

(b) The fuel consumption for FUMTS is only 9.4% to 9.6% of that of the current essentially all-auto mode! For every one gallon of fuel used in the FUMTS mode, the all-auto mode requires 10.42 to 10.6 gallons!

(c) The fuel savings that accrue by use of FUMTS are 5.67 billion, 10.36 billion, and 70.08 billion gallons, respectively; the savings in equivalent barrels of crude petroleum are 298 million, 545 million, and 3.69 billion barrels, respectively; the 10-year savings are 2.98 billion, 5.45 billion, and 36.9 billion barrels, respectively!

(d) The pollutants from FUMTS are 10.1% to 10.2% of those for the current essentially all auto models.

(5) The travel time using FUMTS is vastly less than using one's personal vehicle for almost everyone.

THIS IS ABSOLUTE: Ever-increasing gridlock is ever-increasing gridlock, enormous petroleum waste is enormous petroleum waste, enfeebling wasted time is enfeebling wasted time, and staggeringly expensive costs are staggeringly expensive costs by any other euphemisms.

If we rigorously use our human reason both to discover and acknowledge the facts about our critical world petroleum depletion crisis and our current transportation quagmire, and if we follow the logical implications for effective human action that such knowledge entails, then we can free ourselves of our plight. Failing this, we are doomed by mindless apathy, irrationality, ignorance and the stranglehold of the powerfully entrenched corporate interests to suffer our ever worsening petroleum extinction plight and transportation afflictions.

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