Good Capitalists Stop Disasters

by Ilan Kelman

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The blackout, and commentary on it, have raised the issues of complexity and scale of the infrastructure systems we create. In particular, the immense size of the energy production and energy transport systems produces an interlinked, continental-wide network which lacks appropriate resiliency and redundancy. These traits stem directly from the economic and social models which have led us to create these monsters.

Contemporary society wants all the energy-related conveniences with the immediate economic costs being low and with the true and long-term costs being far removed, in space and time. Environmental, aesthetic, and social costs are examples. They are hidden from us through distant energy generation facilities justified economically by the costs (falsely) discounted into the future.

If, however, economies of scale and distancing a product's true costs from the product's users are the most important aspects of our energy system, then centralised structures and systems will be supported. Thus, we build huge systems and monoliths where few people see them, such as nuclear power plants, large dams, and vast, towering wind farms in the isolated countryside. We then need immense networks and systems to get the energy from source to use. In addition to energy, we generate increased complexity, increased interconnectedness, and increased vulnerability.

In January 1998 in eastern Canada, these issues became evident when an ice storm brought down power lines and power line towers. Millions of people had no power for days. During, and in the aftermath of, that crisis, a popular suggestion was to bury power cables to reduce the system's vulnerability. Cables underground would not need supporting towers and could not be broken by the accumulation of ice.

A few weeks later, right on cue, Auckland's buried power cables started frying in a heat wave. Four cables brought power to the centre of New Zealand's largest city. They went out on 22 January, 9 February, 19 February, and 20 February. Five weeks later, an emergency cable restored power but shut down hours later when a faulty sensor tripped a circuit breaker. Ye canna win. Unless you tackle the root causes of the complexity, lack of resilience, and vulnerability. We must return to the economic and social models we have developed for energy and the reasons for creating the systems we see.

Our social construct is of an absolute right to as much energy as we can use. In reality, that is a privilege and luxury which we have never been able to afford, yet we refuse to admit that lack of affordability. The maxim that increased energy supply and use are needed for a healthy economy is false, yet it is a myth that drove (for example) Ontario Hydro's policy until the early 1990's. Many still cling to the ideal that generating capacity must be continually increased to keep the economy working.

Yet decreasing energy use saves individuals and companies money. Less dependence on massive systems implies less Big Brother governmental inference in constructing and maintaining infrastructure for society. Small-scale, decentralised energy systems and a pig-headed pursuit of energy efficiency and energy use reduction should be the fantasy of all dedicated neoliberal capitalists. The fact that red (or is it green?) environmentalists also support that goal for environmental, social, and sustainability reasons is, of course, completely irrelevant.

After all, think of the cost of the August 2003 blackouts in North America and southeast England and of Canada's and New Zealand's 1998 troubles. Not in terms of the social disruption and system repair, but in terms of business opportunities lost and other economic and financial costs. Capitalists would have saved billions had they reduced their energy needs and maintained a resilient energy system. Therefore, the root causes of the vulnerability issues which our energy systems face can be traced back, to a large extent, to the way in which capitalist economics has been implemented and our social attitude towards energy.

This problem applies not only to energy systems but also to other lifelines. Transportation, water supply, waste management, and communications systems all require societal/governmental investment to keep them safe and to reduce their, and consequently society's, vulnerability. California's roads and bridges provide another case study.

In 1978, California voted for Proposition 13 which, amongst other measures:
-Accepted property valuations for tax purposes at the 1976 value.
-Limited property tax increases on any given property to no more than 2% per year as long as the property was not sold. When sold, the property was reassessed at 1% of the sale price and the 2% limit then applied to future years.
-Required any state tax increase to be approved by at least two thirds of each legislative house.
-Required local government taxes for a designated or special purpose to be approved by two thirds of voters.

These restrictions meant that multiparty political courage would be required to increase taxes. That is, it would rarely happen. California's revenues plummeted and funding was not available for infrastructure in need of repair, for programmes to understand resilience and vulnerability issues of infrastructure, or for monitoring and enforcement of regulations.

To add to the woes, President Ronald Reagan and his handlers took offence at big government through the 1980's. Research, inspection, and maintenance programmes were slashed, including seismic safety programmes, as deregulation was coupled with federal budget cuts of $39 billion, a 25% tax cut for individual taxpayers, and a more business-friendly tax regime. As part of this strong trend of individualism versus society and government, on 3 April 1989, voters in Los Angeles rejected Proposition 3, the city's suggestion to provide $90 million in bonds for earthquake safety measures.

Given these trends, it should not have been particularly surprising when, on 17 October 1989, an earthquake in the Bay Area of San Francisco and Oakland collapsed a section of the Nimitz Highway (Interstate 880), killing 41 motorists. An appallingly ironic consequence considering that the current California Seismic Safety Commission was established during the 1970's administration of Governor Ronald Reagan.

Blaming the engineer that approved the design drawings is easy. Deconstructing how a decade of underinvestment and disinterest in protecting society led to those deaths is more challenging. An individualistic culture of non-interference from government creates a system which cannot afford to provide needed societal services, such as protection from a straightforward seismic event. The natural hazard was extreme. The human vulnerability conditions which creatively fabricated the disaster from the hazard were even more extreme.

The direct cost of the 17 October 1989 Loma Prieta event is estimated as $6-12 billion. The direct cost of the 17 January 1994 Northridge earthquake is quoted at over $20 billion. The bridge earthquake strengthening programme for all of California's bridges is estimated to cost $4 billion. Considering other infrastructure, the cost of appropriate earthquake mitigation appears to be equivalent to--possibly slightly more than--the direct costs of just two earthquakes in five years.

But consider more earthquakes. Consider the indirect costs. Consider the lives. Consider implementing earthquake vulnerability reduction measures, technical and social, simultaneously with social and technical measures to reduce vulnerability against other possible risks, including storms, vandalism, avalanches, poor maintenance, corruption, and, of course, blackouts. Good capitalists should do a straightforward cost-benefit analysis and pour money into reducing the vulnerability of our lifelines. For the simple, straightforward, sensible, good reason of saving money.

Lifelines cost money. Governmental services cost money. Neglecting them costs even more money. Mitigation saves.