

The Oil Drum: Campfire

Discussions about Energy and Our Future

PROJECT FOR A REVOLUTION IN PHILADELPHIA

Posted by [Nate Hagens](#) on December 19, 2009 - 6:31pm in [The Oil Drum: Campfire](#)

Topic: [Environment/Sustainability](#)

Tags: [gregor macdonald](#) [[list all tags](#)]

The following is the first (long promised and awaited...;-) essay from writer/financial analyst Gregor Macdonald. Gregor is a long time reader of The Oil Drum, frequenter of ASPO conferences, and general zeitgeist monitor who lives and writes in Massachusetts. His website and newsletter are at www.gregor.us. The below "*Project For A Revolution In Philadelphia*", is an epistolary essay in which the author makes the case for an accelerated urban energy transition.



PROJECT FOR A REVOLUTION IN PHILADELPHIA:

Dear Campfire,

I'm sitting before a photograph of the completion of the transcontinental railroad--140 years ago this May, in 1869. The driving of the golden spike poetically combined the symbolic with the hard, physical world--an event that should have carried forth well into this century. Instead, we were interrupted and led astray by oil, and the automobile. So I lament the passing of the 19th century when the United States, with its railroads and waterways, was almost perfectly positioned for the challenge it faces today.

My decade long research into energy and energy transition, and the post-war economic [seigniorage](#) enjoyed by the United States, suggests strongly to me that the prospect for future income growth here in America is now of a wholly different order, than was enjoyed in the past 100 years. While I'm not quite ready to sign on fully to the



[Orlovian Slope of Dysfunction](#), I certainly agree with its direction. Flat incomes, slow growth, and a very rough energy transition are not only dead ahead--they have arrived. We will do well just to maintain a lot of the infrastructure we currently have. To build new infrastructure will only become more difficult as the inventory of liquid energy declines.



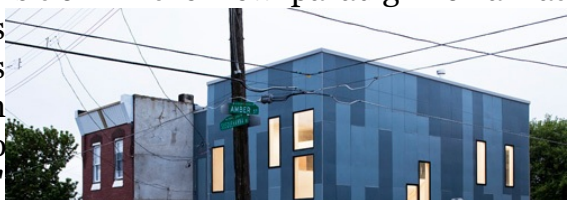
We also face a badly broken political structure. The Housing, Automobile, and Financial sectors have emitted a powerful signal that good portions of those industries are no longer needed. At the federal level, those signals go unheard. Suddenly, the supersized states of California and New York, and the United States itself, appear as wrongly-scaled platforms from which to effect any change. But I am trying to look past the rising probability for the kind of social rupturing that inevitably follows these conditions. America's cities, for example, would appear to be rightly scaled for our energy and economic transition. Therefore, I'm going to suggest there's hope for our cities as long as they realize a difficult truth: they're on their own, and Washington is unlikely to help them.



I recently spent an afternoon at a hosted event by [MIT's Senseable City Lab](#) in Cambridge, Massachusetts--and was treated to a good overview lecture of that working group's various urban projects. This gave me a chance to collect long-standing thoughts I've had about the future of cities from my years living in Boston, NY, Los Angeles, and London. The ideas I want to write about today could apply to most American cities. Specifically, I'd love to see my recommendations put into practice in a city like Oakland, California. However, for reasons I will explain, I decided to use Philadelphia as my tableau.

It's nothing less than astonishing to consider the map of [metro Philadelphia's total rail transport coverage](#). Only in London have I seen such an overlay of underground, above ground, and additional connectivity to longer-distance rail transport systems. My plan for Philadelphia is called FEW: Food, Energy, Wheels. And in Wheels, Philadelphia has an enormous head start on the rest of the country. Sadly, it's a transport system that's overlaid on a city that's lost nearly 25% of its population in the past five decades. We can't afford to let built systems such as these go to waste. Philadelphia needs to be repopulated. In its current position, the city is quite reminiscent of London after the devastating serial recession-depressions of the 1970's and early 1980's.

As in many other American cities, I am forecasting that a good portion of the industrial-commercial real estate inventory is headed towards zero. My experience in real-estate and environmental law suggests that a lot of this property will fall into the hands of the city, through tax-takings. Indeed, Philadelphia is already a dirt-cheap residential real-estate destination for artists, who are busily carving out neighborhoods with art galleries and [100K green homes](#), and renovations of industrial buildings. Because Philadelphia is already so low to the ground economically, it is a perfect city to conduct energy transition in the new paradigm of a flat economy. A great deal of Philadelphia's land, especially its vacant lots, will need to be marshaled to build out its urban farming and energy system, so again, just as with London coming out of 1982, it's a benefit that the city is so neglected and cheap. In the new economy, most "profit"



margins whether measured in energy or capital terms will be slim. So starting with input costs nearer to zero is a great help.



Food, Energy, Wheels



The United States desperately needs a mayor or a governor to send a loud and frankly outrageous message to the country (and the world) that a radically new direction will be taken. In part, this message will be necessary to attract a new population of like-minded individuals and businesses, looking to sign on to a new paradigm. While we have seen an early example of this new population come to a city like Detroit, to take part in the wide-open, urban-prairie, libertarian-lab experiment that city has become, Philadelphia should adopt a more intentional program. The buildout of urban farms, urban in-fill solar PV, and the development of a bicycle and rail oriented transport system should be more fully integrated into a citizenship model that leverages young people in particular. Indeed, I see FEW as a plan that would be incorporated into the school curriculum.

It will also be necessary for Philadelphia to adopt a hostile position towards the automobile and federal automobile infrastructure. Philadelphia needs to become a city where capital previously exported to automobile manufacturers stays at home. As with others cities, Philadelphia should consider dismantling its highways (see: [Braess Paradox](#)), and should reject any federal attempt to build more roads. For the annual capital required for bridge repair and surface-road maintenance, a road tax should be levied on all cars and trucks entering the city, much in the same fashion as in London. Every effort should be made to connect the lines of road costs directly to road users.

Philadelphia should declare its intention to become the most bike friendly city in the US, which won't be easy given the great leap already made by Portland, Oregon. To be taken seriously, several long city streets or boulevards should be converted into bike highways. Neighborhoods should be anchored by community bike shops, and young people should learn how to repair bikes. The city should give tax breaks to bike manufacturers willing to relocate to Philadelphia. Bike transport should be made part of workplaces and the school system. There should be several races conducted each year from a European style road race, to a celebratory parade.

In the same way that the emergent bike system should be integrated into schools, so should the Food and Energy portion of my FEW plan be integrated into public school curricula and summer work programs. Philadelphia, again, already has a [robust urban farming culture](#) that is making good gains but the city should boost these efforts to a much higher level. As a stated goal, agriculture yield targets should be raised significantly. All fast food franchises within city limits should be taxed exorbitantly. Urban food production should be fed directly into the schools, with surpluses sold at neighborhood anchor stores (in similar mappings to the neighborhood bike shops). Graduating high school students should be educated in



soils, nutrition, and the business aspects of food production. In addition, the city should give incentives to attract a new class of restaurateur looking to source organic food locally. Again, this is already happening in many US cities but Philadelphia should ramp it up. It would be beneficial to add some glamour and panache. Attracting a few celebrity chefs who have their produce delivered by bike from city farms makes for good images. Advertising Philadelphia's new approaches to the world will be a key strategy to lend momentum to its transition.



Receding Ricardo



There is no shortage of vacant land in Philadelphia for urban agriculture and, as with most US cities, there's no shortage of brownfield(s) either. In addition to seeing that every remaining oil-fired heating system is ripped out from its public buildings, I see a great opportunity for Philadelphia to partner with solar manufacturers to both produce and install utility grade solar PV. This is yet another way for cities to retain their capital more locally. As a broader point I see the age of Ricardian [comparative advantage](#) not at an end, but in decline. With the price of urban dirt going to a dollar, and the price of the dollar going to dirt it seems not unreasonable to project that many American cities will eventually become competitive with emerging market manufacturing. Especially after shipping costs are factored in, and once the inevitable revaluation of emerging market currencies extends itself further. My recent (internet) tour of commercial and industrial buildings for sale here in New England, combined with the my outlook for a permanently smaller US economy, suggests to me that the crash in commercial real estate will not only carry onward for some years, but is actually a good thing. Here's why: given the mistaken federal policy to try and support a full spectrum of asset prices and obsolete industries, commercial-industrial real estate may be one of the few asset classes allowed to head to zero. [And zero is rich with opportunity.](#)

We need to see Philadelphia with fresh eyes, and recognize that in a world of soaring costs to build new infrastructure, the City of Brotherly Love is a treasure trove of land, housing stock, and commercial architecture all tied together by a massive rail network and a waterway. What's not to like? As usual, the [artists know a good thing when they see it](#), and they move in early to make their score. If Philadelphia would adopt FEW as its core strategy, it could potentially leap-frog ahead of other cities. Some of those cities will waste years and capital trying to retain alot of systems that are naturally ebbing away. Other US cities are either not on waterways, or face a topography almost barren of rail transport. Here is my thesis: were all US cities to decide collectively that energy transition on an urban level had to commence at once, the embedded advantages of Philadelphia would suddenly become glaringly obvious.



Whether Food, Energy, Wheels is the appropriate framework for all US cities would be made

The Oil Drum: Campfire | PROJECT FOR A REVOLUTION IN PHILADELPHIA <http://campfire.theoil drum.com/node/6061>
clearer if just one US city were to take action. A number of US cities now have little left to lose. My choice of Philadelphia is made, in part, because I think the country desperately needs to see an example of the kind of economic vibrancy possible once we start to recoil from the automobile. And I think Philadelphia is set-up nicely. Some leader, some mayor I suspect, needs to show the rest of the country that this rough economic and energy transition can be confronted. To do so will indeed take a level of courage and leadership not currently found anywhere in Washington, DC. Yes, there is little doubt the US has collapsed. But that's not the end of the American story.



Captions/Photos

1946 ex-Kansas City ex-PTC 2289 at Shirey's farm south of Reading, PA
June 8, 2008 photo by Mike Szilagyi | Philadelphia Trolley Tracks: <http://www.phillytrolley.org/>

Ben Franklin, photo by Michael Penn | <http://www.flickr.com/photos/13668275@No7/2446769126/in/set-721576045997...>

100K House | Jetson Green <http://www.jetsongreen.com/2009/08/100k-house-gets-all-sorts-of-props.html>

Commuter Bike | Vanilla Bicycles of Portland, Oregon: <http://vanillabicycles.com/>

Greensgrow Farms Philadelphia | City Farmer News : <http://www.cityfarmer.info/2008/11/03/where-industry-once-hummed-urban-g...>

465 kW Utility Grade PV in Brockton, MA | enerG: http://www.altenerg.com/back_issues/index.php?content_id=64

MIT Copenhagen Wheel | MIT Senseable City Lab: <http://senseable.mit.edu/copenhagenwheel/index.html>

Public Mural/Art Program Philadelphia | A Love Letter for You: <http://www.aloveletterforyou.com/>



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](http://creativecommons.org/licenses/by-sa/3.0/).