

Lawrence Peak Oil Action Committee
Kansas Sustainability Action Network
P.O.Box 1064
Lawrence, KS 66044

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Lawrence-Douglas Co. Metropolitan Planning Organization
Lawrence-Douglas Co. Planning Office
Lawrence City Hall
6 east 6th St.
Lawrence, KS 66044

re: T2030 draft, Jan-Feb 2008

Dear Members of the MPO:

Thank you for the opportunity to comment on the current draft of T2030. I would like to address the larger context as well as specific chapters within the document.

Ch. 1, Context & Issues

As we enter the 8th year of the 21st century, it must be noted that all the underlying assumptions of this document are of the 20th century. As a result, all the conclusions of this draft of T2030 are skewed toward old school thinking.

The historical pattern of 2% annual growth of population and employment over several decades is given as the validation that this growth curve will continue unchanged. No empirical data is offered to support this assumption. Yet the bulk of this document is predicated on a continuation of an era of cheap petroleum that is rapidly being eclipsed by the phenomenon known as Peak Oil. Simply stated, Peak Oil occurs when global oil demand outpaces global oil production, resulting in rapid price inflation.

No energy policy analyst denies that Peak Oil is upon us; the only dispute is how soon the peak will occur (and some maintain it already has). The earliest projections are 2005-06 made by Lester Brown of the Earth Policy Institute and by K.S. Deffeyes of Princeton. The general range is from 2006-10, projected by petroleum executives and geologists, academics, and investment bankers. The World Energy Council projection is after 2010. But notably, the CEO of Shell Oil just revised his projection of 2025 back to 2015. ¹

Obviously, most of these dates are present time, with none having a planning horizon anywhere near 2030. For the T2030 Plan draft to ignore this reality is not only irresponsible, it is embarrassing for our community and our MPO.

The effects of Peak Oil are already being felt throughout the local and global economy, with significant implications for the transportation sector. Peak Oil price inflation will negatively impact everything transportation related: air, ocean, rail, and road transport, global supply chains for commodities and finished products, ports and distribution hubs, warehousing and on-time inventories, big box retailing with truck fleets, internet sales with package express, suburban sprawl with single occupancy autos, commuter jobs, transit, asphalt availability and cost, agricultural traction, coal mining and coal trains, etc.

Because our highly mobile society is completely oil dependent, Peak Oil price inflation will multiply through every aspect of our economy. Just today, 20 February, "The Labor Dept. reported that the total price index rose this month by 0.4%, but the core inflation index rose by 0.39%, which means higher prices are spreading into the broader economy". ²
The driver? Energy. Today registered a record high \$101.32 per barrel for oil.

Therefore, it is imperative to plan for transportation options that will minimize our use of oil, and even minimize our reliance on transportation itself. A better title for this plan would be Transportation Contraction 2030.

That said, I will comment on several specific elements within the Plan. What I offer is not prescient, merely scenario planning based on economic reality.

Ch. 5: Land Use and Transportation

This could prove to be the most important chapter of T2030. However, to effectively address a future following oil depletion, this chapter must be radically revamped. One of the few principles of T2030 that will hold is the TND cluster settlement and planning for reduced auto use. However, this principle must be rapidly applied to all of our existing neighborhoods within a much nearer planning horizon of 5-10 years at most.

First, we must shift our thinking away from autos over to any other form of transportation as our primary modes of transportation. Capital improvements must be prioritized for pedestrian, bicycle and transit connectivity, and re-engineering the auto infrastructure over to these non-auto modes.

Secondly, because of reduced influx of commodities and goods into our community (see: Ch.11 below), we will need to change City-wide zoning to accommodate mixed use neighborhoods that allow small scale handiwork trades and services and sales. Equally important will be a parity of open space and cluster density, so at least 50% of urban land is set aside for local food production, community gardens, and food vendors and cafes.

Third, building codes and subdivision regulations will need to incorporate solar access (non-shade) provisions, and rooftop wind generators or district-scale wind generators.

Fourth, any urbanization beyond current City limits will need to be very low density with village scale clusters, so as to preserve the bulk of productive agricultural lands. And all prime soils within the Kansas River and Wakarusa River floodplains must be designated and zoned for agricultural uses only. Our future food security will be regionally supplied.

Ch. 6: Roadway Plans

From the section titled Roadway Deficiencies: "Vehicular traffic is outpacing our ability to improve the roadway system. As a result, congestion has been building on the City's roadway network. This trend is expected to continue through the year 2030." This policy statement from the Plan is a pivotal assumption, based on an unending supply of petroleum, and completely ignoring the Peak Oil crisis at our doorstep. If Peak Oil is fully acknowledged and appreciated, the reverse assumption will become our reality. Chapter 6 needs to be reworked accordingly.

As transport adapts to Peak Oil, auto use and congestion will be decreasing, and human powered transport and transit will be highly in demand. Any motorized urban transport that remains will tend to be electric or compressed air micro-autos, and electric scooters and bikes.

Vehicles and fuel are only half the picture. Pavement is the other component affected by Peak Oil. 94% of U.S. roads are paved with asphalt. On 14 January 2008, Venezuela halted exports to the U.S. of 6.2million barrels of asphalt per year. Though there are other sources, an overall shrinking supply and escalating oil prices will only result in higher road costs. And concrete production exhibits a significant CO2 profile, which, with the advent of the coming carbon taxes, will likewise be more expensive.

Ch. 7: Transit

The current City bus system is currently inadequate in frequency and range, both for employment trips and personal trips (retail, medical, etc.). And in the current budgetary mix, it is seriously under prioritized, readily considered as the “sacrificial lamb”.

For a post Peak Oil future, transit will need to become the backbone of any motorized local transportation. This principle will hold true for local options whether fixed route buses, semi-fixed route share taxis, or fully demand-response vans, as well as for inter-local options such as commuter rail and highway connector buses.

Lawrence needs to begin rapid integration of regional transit in cooperation with the Mid America Regional Council MPO, Kansas City MO, Johnson County KS, KDOT, the KTA, UPRR, and BNSFRR. Strategic origin-destination studies should be investigated, right-of-way options identified, and capital equipment budgeted for.

Ch. 8: Bicycles

Until ten years ago, the official City view of bicycles was still as a toy, for recreation and youth, in spite of the fact that Lawrence had adopted the Pedalplan in 1979. City bicycle plans were administered and funded by the Parks & Recreation Dept. For the most part, implementation meant bike signage, but for a few fragmented trails through City parks or along Federally funded roads. Commuter or utilitarian bicycling was inconsequential.

In the late 1990's, a combination of increased Federal funding and local bicycle activism spurred more serious bicycle plans and resulted in more bicycle lanes and side trails, with connectivity as a key design principle. While this is admirable progress, bicycle infrastructure lags behind most other equivalent cities, particularly University towns.

Admirably, current City plans and policies recognize bicycles as transportation, and funding is mostly through the Publics Works Dept. Yet implementation is slow because bicycle lanes or side trails are funded only as an adjunct to new roadway construction. Advancing the connectivity of an on-street bicycle network is not a priority of itself. Beyond that, the circumferential trail network is again a recreation item, impeded by the Parks & Recreation Dept. lack of R.O.W. purchase funding.

As with transit, a post Peak Oil Lawrence will need to rely extensively on bicycles for normal day-to-day activities. In order to transition from an auto emphasis to a non-motorized transportation system, Lawrence will need to conduct bicycle origin-destination studies, identify key roadways to dedicate primarily for bicycle use, and extend the network throughout all existing neighborhoods. Buses will need to incorporate more space for bicycles, locking bicycle racks will be needed in public areas, and places of employment will need shower facilities.

Ch. 9: Pedestrian

Walking in the late 20th century was used mostly after parking one's car, or else for health reasons as in hiking. The most walking done by the average person has been around home or work, or short jaunts in one's neighborhood. Only the young or indigent used walking extensively to get around. Therefore, many existing city sidewalks have deteriorated, and the billions of dollars needed to repair U.S. infrastructure is generally not devoted to sidewalks.

After many city dwellers abandon their automobiles due to fuel prices, walking will become a necessity for at least part of their mobility. Consistent surface sidewalks will be required, for non-motorized secondary transport such as roller blades or kick scooters, for

walking in inclement weather, and for cleanability during winter snow and ice. Budgeting for concrete will need to shift progressively away from auto pavement over to pedestrian facilities. All neighborhoods will need to become walkable neighborhoods.

T2030 has identified various protocols for inventorying sidewalk conditions and connectivity, and for level of service rankings. These will be useful tools for Peak Oil transitioning, but will need to be applied in a very different context to anticipate and plan for waning auto use, and a much heavier and continuous sidewalk use.

Ch. 11: Freight & Intermodal

The assumptions stated in the first paragraph of this section are probably the most likely to prove incorrect after Peak Oil. It is true that a seamless intermodal link from the local economy to the global economy has been valuable over the past few decades, with Kansas warehousing developing as a major economic reality.

For example, Kansas City Southern RR is spending billions to link their intermodal Smart Port with the shipping port of Lázaro Cárdenas on Mexico's Pacific coast, to bring Chinese containers to the central U.S. for truck distribution to markets. BNSF RR is pursuing a somewhat less ambitious facility in Gardener, on the assumption that U.S. consumer demand will continue to require global suppliers.

However, for a whole constellation of reasons, U.S. consumer demand is becoming constricted. This trend is driven by the sub-prime crisis, the export of most U.S. manufacturing jobs, record U.S. foreign debt and military spending, and volatile energy prices. And the flip side of the global economy sees consumer wealth and demand rising rapidly in China and India so that more and more production there is going to serve their own population rather than be exported. We are caught on our own economic petard.

As you might rightly imagine, this global supply chain is entirely dependent on cheap oil. But Peak Oil signals an end to that for two reasons: all major oil producing regions are now pumping at capacity and unable to ramp up their output, and their discovery of new oil fields continues to fall. Econ 101 says prices rise.

Adding to that is the fact that these producers are also allocating more of both their manufacturing output and oil output to their own growing economies, and exporting less. So not only are foreign product exports and U.S. product demand contracting, but Peak Oil means the cost of bring product to our markets is escalating. Econ 101 says availability drops.

Local and state roadway plans are greatly predicated on an expanding influx of foreign goods, but fairly soon that will prove to be a fanciful premise. The T2030 Plan would do well to scale back circumferential and inter-urban highway networks, and concentrate our limited budgets on local roads, trails and sidewalks to serve local and regional production.

The remaining focus on this chapter dealing with passenger rail, inter-city bus, and commuter rail are completely appropriate for post Peak Oil, but should be given even greater attention.

Conclusion

In essentially 100 years, industrial societies have consumed one half the global oil reserves, the easier half to extract. Being at the peak now, or very soon, means the remaining half or oil reserves is deeper, more remote, thicker oil, harder to extract, and more expensive. We are facing an oil depleted future, and our planning must reflect that.

Sincerely,

Michael Almon
for Kansas Sustainability Action Network

Source Notes

¹ Global Oil Production Peak - Range of Projections

2005-2006	Brown, Lester	World Policy Institute
2005-2006	Deffeyes, K.S.	Prof. Emeritus, Princeton
2006-2007	Bakhtiari, A.M.S.	Iranian oil executive
2007-2009	Simmons, M.R.	Energy Investment Banker
2008-2018	Aleklett, K.	Assoc. Study of Peak Oil
Before 2010	Goodstein, D.	Vice Provost, Cal Tech
~ 2010	Campbell, C. J.	Oil company geologist
After 2010	World Energy Council	NGO
~ 2015	van der Veer, Jeroen	CEO, Shell Oil
~ 2037	US EIA avg. scenario	USGS & SU DOE

² Marketplace Evening Business Report, by American Public Media