The Oil Drum: Campfire

Discussions about Energy and Our Future

Bloomington, Indiana Peak Oil Task Force has Lots of Ideas

Posted by Gail the Actuary on February 17, 2010 - 7:10pm in The Oil Drum: Campfire

Topic: Environment/Sustainability

Dave Rollo of the Bloomington, Indiana Peak Oil Task Force sent me links to the material prepared by the task force, and wanted me to let others know about the work they have been doing. The main piece of work the group produced was a Final Report of the Task Force.

In this post, I thought I would share with you the executive summary of the final report, including a list of vulnerabilities and strategies identified by the Task Force. The latter includes a fairly detailed list of suggested actions which I thought readers might be interested in discussing. Are these reasonable actions? Which ones surprise you?

Executive Summary of Peak Oil Task Force Report

Oil infuses just about every aspect of our lives. We rely on cheap oil for everyday necessities such as transportation, food, clothing, and electricity. However, oil is a nonrenewable resource. It is widely acknowledged that the world has reached, or will soon reach, the point at which oil production is at its maximum, or peak. Once the world reaches peak oil production, we will not run out of oil but we will run short of oil. At that point, the price of oil will rise and become more volatile. Given the systemic nature of oil, a decline in the availability of cheap oil will have implications for all aspects of society.

The Bloomington Peak Oil Task Force was charged with assessing Bloomington's vulnerability to a decline in cheap oil and developing researched and prudent strategies to protect our community. Since March 2008, the Bloomington Peak Oil Task Force has met bi-weekly to discuss ways in which our community might be made more resilient in the face of peak oil. Specifically, the Task Force examined the following community systems: municipal services, transportation, land use, housing, sustenance, and the economic context.

The Task Force envisions a post-peak Bloomington wherein most residents live within walking distance of daily needs; most of the food required to feed residents is grown within Monroe County; residents can easily and conveniently get where they need to go on bike, foot or public transit; most of the community's housing stock is retrofit for energy efficiency; and local government provides high-quality services to its residents while using less fossil fuel energy.

While peak oil presents our community with serious challenges, it also presents us with an opportunity to make a great community even better.

The following is a representative, but not exhaustive, review of vulnerabilities and strategies identified by the Task Force:

Economic Context. Bloomington and Monroe County are clearly part of both national and

The Oil Drum: Campfire | Bloomington, Indiana Peak Oil Task Force has Lothub Ideasnpfire.theoildrum.com/node/6222 global economies and our reliance on a steady supply of inexpensive goods from as far away as half-way around the world makes us vulnerable to a decline in inexpensive oil.

Mitigation:

- Promote economic relocalization through "Buy Local!" initiatives; encourage a Local Exchange Trading System and cooperate with Transition Bloomington.
- Examine sector dependence on oil.
- Develop and deploy sustainable forms of energy.
- Develop and promote green jobs.

Municipal Services. As the price of oil both becomes more volatile and more expensive, so too will the price of electricity, natural gas, and other energy resources. It will become more expensive for the City to: treat and pump drinking water; treat its wastewater; provide fuel for law enforcement and fire protection; heat and cool municipal buildings; and pick up trash and recycling. Similarly, the City will also experience a general increase in cost of just about anything that relies on energy to produce and transport it.

Mitigation:

- Explore hybrid energy (hydroelectric-solar) generation to complement existing power at the water treatment plant.
- Encourage more rainwater capture by residents and the City.
- Offer energy efficiency and water conservation incentives to residents.
- Expand water storage capacity.
- Transition all back-up generators to renewable sources of energy.
- Develop a community compost program.
- Establish waste reduction goals -- Zero Waste Bloomington by 2040.
- Explore sludge-to-biogas energy generation at the wastewater treatment plant.
- Develop a fuel allocation plan wherein, in the event of a fuel shortage, the Police and Fire Departments are given greatest priority.
- Replace patrol cars with electric vehicles.
- Investigate police pursuit vehicles that do not rely on fossil fuels and transition over to such vehicles as this technology improves.
- Explore alternatives to asphalt.
- Offer carpooling incentives to employees.
- Reduce the size of the City fleet though partnerships with car sharing groups.

Transportation. Of all sectors, transportation is the most petroleum dependent and the most vulnerable to a disruption resulting from declining world petroleum supplies. Ninety-seven percent of transportation energy is reliant on fossil fuel. In Monroe County, we drive approximately 2.8 million miles per day. That's like driving one car around the Earth at the equator 112 times in one day.

Mitigation:

- Bring daily necessities closer to where people live.
- Establish ride and car sharing programs.
- Increase connectivity & the number of planned "lengthy corridors" for bicyclists.
- Make bus transportation faster and more attractive.

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- Seek funding improvements for Bloomington Transit.
- Encourage Bloomington Transit to transition its bus fleet from one relying on diesel fuel to one relying on locally-produced biogas.
- Work toward a regional Comprehensive Land Use and Transportation Plan involving the City of Bloomington, Monroe County, and Indiana University that fosters bicycle, pedestrian, and transit-friendly changes in land use.
- Encourage commuter rail between Bloomington and other cities.
- Encourage bus service between Bloomington and downtown Indianapolis.

Land Use. When it comes to land use, the physical separation of where we live from where we carry out the activities of everyday life – work, food, school, health care, and community – is by far the biggest threat posed by the end of cheap oil.

Mitigation:

- Through zoning and other land management tools, encourage the redistribution of land to bring about denser living arrangements, and a closer integration of residential and commercial activity, thus reducing the total amount of intra-city transportation required. We must restructure our community to provide highdensity, multi-use arrangements friendly to transit, bicycles, and pedestrians.
- Update the City's land use documents with an eye to peak oil.
- Target public transit routes to help shape neighborhood development.

Housing. An aging grid, paired with the likelihood that more and more people will turn to electricity to power their cars, means that the grid will be increasingly taxed. In Indiana, the grid is powered by coal-generated energy. Coal relies on oil for extraction and transportation. Absent efficiency improvements, it will be ever-more expensive to heat our homes.

Mitigation:

- Engage in outreach to reduce energy demand through conservation.
- Work to retrofit 5% of homes for energy efficiency per year.
- Explore the possibility of local power generation from renewable sources.
- Establish loans and incentives for installation of renewable energy.
- Create incentives to make rental units more energy efficient.

Sustenance can be understood as the maintenance and nurturance of health and life. The elements of sustenance include: food, water, waste handling, and health care. At present, these elements are provided by private companies, government, and publicly-owned corporations and are entirely dependent on petroleum. Indeed, less than 2 percent of the food consumed by city residents is produced within the city, its surrounding region or the state.

Mitigation:

- Work closely with the private sector and Indiana University to outline a detailed plan for community food security. Adopt a *Food Security Resolution*.
- Plant edible landscapes on public property.
- Organize City-led horticultural services to include the collection, processing, and distribution of organic waste.
- Increase local food storage.

- Train and deploy more urban farmers.
- Remove or reduce legal, institutional, and cultural barriers to farming within and around the city, and open institutional markets to local food. Establish food-business incubator programs with access to community kitchens.
- Dedicate public land to intensive gardening and farming.
- Work toward a year-round regional farmers' market.
- Work toward the establishment of a local land trust for the banking of farmland.
- Work toward providing more local or regional organic food to Monroe County Community School Corporation, Indiana University, Ivy Tech, and Bloomington Hospital.
- Create a local, publicly-controlled seedbank.
- Encourage water conservation through outreach and incentives.
- Create community composting sites.
- While the City has little direct influence over health care, it can work with stakeholders to advocate for a health care system that is resilient even in the face of peak oil. Specifically, as a community we should: encourage a mobile medical corps for house calls; encourage more neighborhood health clinics and doctors' offices; and support a concentration of essential medical services to remain in the central city location accessible by public transit and pedestrians.

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