



Post Carbon Cities: Planning for Energy and Climate Uncertainty

A Guidebook on Peak Oil and Global Warming for Local Governments

EXECUTIVE SUMMARY

***Post Carbon Cities: Planning for Energy and Climate Uncertainty* provides guidance and support to local government officials and staff for meeting three critical goals: breaking community dependence on oil, stopping community contributions to global warming, and preparing the community to thrive in a time of energy and climate uncertainty.**

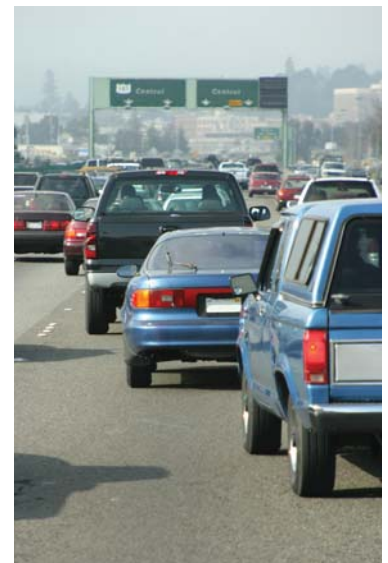
The most direct strategy for achieving these goals is to *reduce consumption* and *produce locally*: reduce the community's overall consumption, and develop the capacity of local farmers and manufacturers to provide for the community's basic needs. The more your community can get its energy and basic goods from local sources, the less vulnerable it will be to rising and unstable oil prices, and the less it will contribute to climate change.

Energy and climate uncertainty Most credible observers now recognize that our global climate faces radical change in the coming decades if we do not take immediate and far-reaching action. Peak oil (the coming high point and subsequent decline of world oil production) is not as widely understood, but presents a similarly complex set of challenges.

Time is short to prepare for peak oil and global warming. At current rates of fossil fuel consumption we will most likely pass peak oil by 2020¹, and we seriously risk triggering catastrophic climate change if we do not start significantly reducing global carbon emissions by 2016².

The key problem posed by both peak oil and global warming is ultimately one of *uncertainty*: these phenomena are creating changes in economies and ecosystems at the global, regional and even local levels that we cannot easily predict. For local governments — responsible for managing local public services, planning for future land use and transportation, and protecting the community's economic and social health— this uncertainty creates a wide variety of risks and vulnerabilities. How will local economies be affected if the price of oil exceeds \$100 a barrel? How will regional climate shifts affect the local water supply? Local government decision makers need to understand and respond to these challenges.

Incentives to act locally As many southeastern U.S. municipalities discovered after Hurricane Katrina knocked out regional fuel pipelines in 2005, state/provincial and federal government agencies do not have the ability to meet every jurisdiction's resource needs in times of crisis. Local governments, however, have the flexibility, capacity and



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by Daniel Lerch,
Post Carbon Institute, 2007

Just about everything you do to reduce energy consumption and carbon emissions in your city will save money in the long run.

Take these four initial steps to immediately address energy and climate uncertainty.



motivation to address risk management and emergency response needs in ways that higher-level government agencies cannot.

Local governments have strong financial incentives to address peak oil and climate change. Reducing local oil dependence and carbon emissions means pursuing energy-efficient buildings, locally-controlled energy sources, compact transit-oriented land uses, alternative transportation modes and other aims that are energy prudent, and thus ultimately fiscally conservative. When the challenges created by peak oil and climate change are not future risks but present problems, those communities that have prepared will have distinct advantages over those that haven't.

Local governments are well-positioned to address peak oil and climate change because they have influence over three key areas of urban spatial and economic development:

Building construction and energy efficiency. Through zoning codes, building codes and the permitting process, municipalities can encourage building designs that save energy and resources.

Local land use and transportation patterns. Municipal land use and transportation planning decisions directly influence whether people and businesses will have mobility choices that allow them to save energy and money.

Local economic activity. Municipal economic development initiatives are opportunities to encourage development in low-energy, zero-carbon directions, by both incentive and example.

Four Initial Steps Over the last fifteen years, hundreds of local governments in the U.S. and Canada have begun systematically reducing their greenhouse gas emissions in response to global warming. Since 2004, when oil prices climbed beyond 15-year highs, a number of local and regional government agencies in both countries have also begun responding to the threats posed by peak oil.

Drawing from the experiences of local governments that have already begun responding to global warming and peak oil, here are **four initial steps** that your own city can take to address these challenges:

1: Sign the Mayors Climate Protection Agreement (U.S.) / Endorse the World Mayors and Municipal Leaders Declaration on Climate Change.

For U.S. mayors, signing the Agreement commits your city to greenhouse gas reduction in the absence of federal leadership. Both U.S. and Canadian cities can also contribute to international carbon mitigation efforts by signing the Declaration. See www.coolmayors.com and www.iclei.org/montrealsummit.

2: Join ICLEI's Cities for Climate Protection Campaign³ to get your city started on reducing energy use and greenhouse gas emissions, and to connect to the resources and expertise of the leading global movement of local governments working on climate change. See www.iclei.org.

3: Sign the Oil Depletion Protocol, which sets a target for reducing oil consumption across your community. Signing the Protocol sends a signal to citizens, business leaders and municipal staff that your city is serious about reducing its energy vulnerability. See www.oildepletionprotocol.org.

4: Establish a Peak Oil Task Force to quickly identify the challenges and vulnerabilities your community faces as a result of peak oil. A task force is also a valuable way to introduce community stakeholders to the challenges of energy uncertainty, and engage them in developing a broad-based response. See Section 6.2, "Guide to establishing a peak oil task force."

Five principles for the long term

Integrate these **five principles** into your local government's decision-making and planning processes to comprehensively address energy and climate uncertainty over the long term:

1. Deal with transportation and land use (or you may as well stop now). Fundamentally rethink your municipality's land use and transportation practices, from building and zoning codes to long-range planning. Make land use and transportation infrastructure decisions with 100-year timeframes. Organize with neighboring jurisdictions to address the land use and transportation challenges of energy and climate uncertainty at a regional level.

2. Tackle private energy consumption. Use the tools you already have to encourage serious energy conservation and efficiency in the private sector. Engage the business community aggressively, challenging your local business leaders to reinvent the local economy for the post-carbon world.

3. Attack the problems piece-by-piece and from many angles. Meet your energy and climate uncertainty response goals with multiple, proven solutions, pursuing many different kinds of solutions at different scales. Enlist the entire community, setting clear community goals and spurring action from all sides to meet them.

4. Plan for fundamental changes... and make fundamental changes happen. Educate and involve your fellow elected officials, staff and community stakeholders about energy and climate uncertainty, challenge them to come up with serious solutions. Lead your city's transition by integrating peak oil and climate change considerations in your own decisions.

5. Build a sense of community. In short, do anything you can to get people talking with each other, forming relationships, and investing themselves in the larger community.

Join the conversation online The Post Carbon Cities network is a resource for everyone who works with or for local governments. Our website at www.postcarboncities.net provides news feeds and special features, resources for policymakers and planners, and a forum where elected officials, municipal staff and others can share and discuss their common problems, challenges, best practices and lessons learned.

We welcome your participation in this dialog; we can all learn much more, much faster, by sharing our successes and our failures, building an ever-richer knowledge base. Please visit us online and join the growing movement of municipal leaders who are preparing their communities for the challenges of energy and climate uncertainty.



Integrate these five principles into your long term decision-making and planning.

Visit www.postcarboncities.net for more resources on peak oil and global warming.

¹ Based on projections compiled in Hirsch, R. et al. "Peaking of World Oil Production: Impacts, Mitigation, and Risk Management," Report for the U.S. Department of Energy, February 2005.

² In 2006 James Hansen, director of NASA's Goddard Institute for Space Studies, publicly called for immediate, broad-based action to reduce carbon emissions, saying "we have a very brief window of opportunity to deal with climate change...no longer than a decade, at the most."

³ The ICLEI (International Council for Local Environmental Initiatives) Cities for Climate Protection works with cities around the world to track and reduce local greenhouse gas emissions. In Canada, this program is implemented for ICLEI by the Federation of Canadian Municipalities as "Partners for Climate Change"; see <http://www.iclei.org>.

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ordering**
www.postcarboncities.net
800-590-7745



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About Post Carbon Institute Post Carbon Institute helps communities everywhere understand and respond to the challenges of fossil fuel depletion and climate change. We conduct research, develop resources and assist groups and individuals who are leading their communities in making a smooth transition to a world that is no longer dependent on hydrocarbon fuels nor emitting climate-changing levels of carbon: the post-carbon world.

www.postcarbon.org

The Post Carbon Cities program provides resources and technical assistance to local governments. Please visit us online and join this growing movement of municipal leaders developing effective local responses to energy and climate uncertainty.

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