# Community Planning Perspectives on Saving Energy in Urban Areas: Thirty Years Later

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The falling price of energy (in inflation-adjusted dollars) throughout the 1980s and 1990s considerably slowed concerted progress in energy conservation. A front-page issue from 1975 to 1985, energy conservation drew little attention and virtually no public support after that. In 1989, for example, I asked a research assistant to survey the city and county governments that had been leading lights in energy conservation and energy efficiency a decade earlier. None of them still maintained the programs that they had started, and none had any staff working on energy issues.

In other words, all the progress that was made in the 1970s and early 1980s just disappeared.

Nevertheless, some good things have happened that reduce energy consumption, though not in the name of energy efficiency. In this article, I look at progress made since publication of my 1978 article.

## Energy Conservation in Buildings

Much has been accomplished in energy conservation in buildings through regulation, incentives, and education. Mandated federal standards of energy efficiency were critical in upgrading building codes' provisions for energy efficiency. Power companies' energy efficiency programs, such as load-control programs and free or low-cost energy audits of buildings, also have been important. The various tax credits for investments in energy efficiency by homeowners have been effective too. Further, federal, state, and local programs providing assistance to low- and moderate-income households to improve the energy efficiency of their homes have been significant and largely successful for homeowners.

Some progress has been made, but not nearly enough, in using solar energy in buildings, through either active or passive solar-energy measures.

Another area of limited progress exists in retrofitting the existing stock of rental housing to improve energy efficiency. Rental units in buildings constructed before the energy-efficiency upgrades in building codes (that is, before 1980) are a serious problem. Little progress has been made in persuading building owners to invest in improved energy efficiency, except possibly in the case of buildings owned by local public housing authorities, which have had access to funds from the U.S. Department of Housing and Urban Development for upgrades.

## Energy Conservation through Lifestyle or Behavior Changes

I do not know how much has been accomplished in conserving energy through lifestyle or behavior changes. People probably are more conscientious about turning down thermostats than they used to be. Little seems to have been accomplished in reducing transportation energy consumption. The speed limit of 55 miles per hour, mandated in the 1970s, worked well but was unpopular and as a result was lifted. Throughout the 1990s, Americans bought gas-guzzling autos, trucks, and sports utility vehicles. Few people now walk anywhere or use other modes of transportation.

## Energy Conservation through Neighborhood Design

The New Urbanism movement has resulted in some neighborhoods that are very energy-efficient, but the relative proportion of dwellings built in New Urbanism communities to total dwelling units is low. Also, the viability of some New Urbanism innovations that can reduce energy consumption, such as neighborhood commercial facilities, has yet to be proven. Many of these enterprises probably will not survive because people still drive to shop, rather than walk to closer commercial facilities.

I see more mixed-use developments that combine commercial and residential facilities, but they probably are a small proportion of new commercial development projects overall. The same is true of transit-oriented developments that cluster commercial and residential land uses near mass transit lines.

There is little evidence of neighborhood design being used to gain passive solar advantages. Also, little progress has been made in revision of subdivision regulations to require layouts that maximize the potential for gains in passive solar energy (although some places have done this, such as Boulder, Colorado).

Further, little evidence exists that district heating schemes have been used in many places. At least, I do not know of any such schemes built in the past twenty-five years in the United States.

## Energy Conservation and Urban Form

Overall, not much progress has been made in diminishing urban sprawl. It continues to be the predominant urban form in a number of metropolitan areas, particularly in North Carolina.

Nevertheless, progress on this front is being made, even if slowly. About one hundred metropolitan areas have programs in place at various scales (town, county, and metrowide) to limit urban sprawl. Unfortunately there are only a few metrowide examples, such as in Portland and other metropolitan areas in Oregon.

Increasing density along transportation routes is important to foster greater viability for alternatives to the automobile. It is occurring in a number of places, but neighbors living in single-family units often resist higher-density development, so bringing about change is a struggle. Its prospects can be enhanced if arterial routes, transit, and adjacent multifamily housing precede the development of single-family housing along transit corridors.

**Little progress has been made in revising subdivision regulations to help maximize gains from use of passive solar energy.**

## Conclusion

In sum, community planning measures of various kinds have contributed to improved energy efficiency in urban areas since I wrote about this subject thirty years ago. But the promise of using land-use planning measures to improve energy efficiency in large measure has not been realized.

What does the future hold? Much depends on the price of energy relative to the price of other goods and services. If the record-high prices of the past year are sustained over time, there may be political support for the adoption of state and local government regulations requiring energy-efficient housing and community development practices. In fact, home and community builders will be increasingly likely to adopt such measures on their own in response to consumer demand, without government coercion.

To the degree that high energy prices are a short-term phenomenon, a repeat of the experience of the 1970s and 1980s seems likely. Currently, high energy prices are based on the poor performance of the dollar against other currencies and the extraordinary demand for energy brought about by unsustainably high rates of economic development in China, India, and other developing countries. If the dollar begins to perform better and rates of growth slow, the rate of increase in energy prices also may slow. If so, the current interest in energy conservation and energy efficiency will fade, the private sector will return to business as usual, and cities and counties will find it impossible to force the development of housing and communities that save rather than waste energy.


## Heath Retires

On February 28, Milton S. Heath Jr. celebrated retirement from fifty years on the School of Government faculty. At the celebration, Bill Ross, secretary of the North Carolina Department of Environment and Natural Resources, presented Heath with the Order of the Long Leaf Pine award on behalf of Governor Mike Easley. The award is the highest civilian honor given by the State of North Carolina.

Heath's career in public service spanned some of the most important years in the history of use and protection of environmental and natural resources. As legal counsel to several North Carolina House and Senate standing committees from 1967 to 1983, Heath helped pioneer significant environmental legislation on water use, dam safety, environmental policy, coastal area management, control of pesticides and oil and hazardous substances, and protection of mountain ridges.

Heath joined the Institute of Government in 1957 in natural resources and environmental law. Soon after beginning to teach state and local public officials, he added courses in environmental law for graduate students at UNC at Chapel Hill and Duke University. Heath has consulted in countries from England to Kenya and written on air pollution control in Germany and Canada. He is the author or the coauthor of four books, numerous articles and professional papers, and eight law review articles.

*Bill Ross (left) presents the Long Leaf Pine award to Milton Heath.*