

NJSSI: THE NEW JERSEY SUSTAINABLE STATE INSTITUTE

New Brunswick, 3 October 2002

Setting Energy Targets for New Jersey

Two core activities form the mandate of the Sustainable State Institute; updating the indicators that we received from the organizations that founded us, and leading the state in setting targets for those indicators. We have been working all summer to update the indicators. This fall we have begun the effort to set targets.

We are initiating this effort in the area of energy efficiency and emissions from energy use. We have begun with energy because it is at the core of so many important issues in the state; air pollution, transportation, land use, and the legislative efforts to transform the electricity sector. It is, more over, a key concern of the McGreevy administration, which is launching an update of the state's energy master plan and giving high priority to energy efficiency.

What are sustainability targets?

What would it mean to set targets that are actually sustainable? While the general concept of sustainability is not difficult, more precise definitions are much harder. Perhaps total dependence on renewable sources of energy would be sustainable. But renewables create externalities that we might not willing to accept on a large scale – for example, there is already opposition to wind power because windmills interfere with broad ocean views. Moreover, total dependence on renewables might cost much more than fossil fuels, forcing us to change our material life style in other ways; in that case people might feel that we were sacrificing our way of life to sustain our energy supply. Barring the development of new technologies that are not yet available or perhaps even conceivable, there may be no way we can sustain all aspects of our current lives, so it is difficult to specify what we might mean by energy targets that are truly sustainable.

It is easier to understand what we mean by a *more sustainable* energy system than a *totally sustainable* system. All else being equal, less use of energy or lower emissions from energy use for a given output, may be considered more sustainable than more energy use or emissions for the same output. Indicators that only track the energy aspects of sustainability would then have to be compared with indicators that track other aspects of sustainability, such as economic well-being or flexibility of our transportation systems.

Energy Targets Working Group

Right now we are working on targets that reflect greater rather than total sustainability of our energy systems. We have launched this process with advice from representatives of key organizations in the state that are concerned with energy, listed in the box below. Learning from our experience already, we are now seeking to broaden this working group to include organizations concerned with transportation, small businesses, and other stakeholder groups.

Organizations Participating in the Energy Targets Working Group:

- Department of Environmental Protection
- Board of Public Utilities
- Office of the Ratepayer Advocate
- PSE&G
- JCPL
- Johnson & Johnson
- Merck
- The College of New Jersey
- Rutgers
- New Jersey Institute of Technology
- Magrann Associates, consultants on green residential construction
- Center for Resource Solutions (Green-E)
- Partners for Environmental Quality
- NJ PIRG
- NJ Higher Education Partnership for Sustainability

If your organization would like to join this group, please send an email to jhecht@njssi.net.

Broadening the Indicators

We are tracking a broader set of indicators than were included in the 1999 and 2000 editions of *Living With the Future in Mind* (both of which are available through our website, www.njssi.net). Those volumes included three indicators related to energy; total consumption in BTUs, energy intensity (consumption divided by gross state product), and total greenhouse gas emissions in CO₂ equivalents. Future indicators and targets will disaggregate consumption and emissions into sectors, probably industry, utilities, transportation, residences, commercial buildings, and agriculture.¹ It is more difficult to disaggregate energy efficiency into sectors. While industry energy use can be expressed in terms of its economic output, the efficiency of sectors such as transportation and residences must be expressed in terms of other measures, such as vehicle miles traveled or number of households. In addition to this expansion of the three general indicators from the 1999 and 2000 reports, we will add a new one, the share of energy consumption in the state that comes from renewables.

How to Arrive at Possible Targets

To set targets for these indicators, we are looking at the technological and policy options that could affect them over the next five to ten years. On the technology side, these include such options as use of Energy Star appliances, replacement of conventional power plants with co-generation systems, or the use of hybrid or fuel cell cars. On the policy side, they include such strategies as financial incentives for the use of energy-efficient technology, state enactment of minimum energy-efficiency standards, or the shift to a “green” tax structure based on environmental harmful activities rather than property or income.

¹ These sectors are based on the energy data available from the U.S. Energy Information Agency. While they are not perfect – in particular because government, schools, hospitals, and other institutions are included within commercial – data are unlikely to be available for any other classification system.

We are not undertaking an original analysis of how these strategies might play out in New Jersey. While such an analysis would be very interesting, it would also take years, and go beyond the level of effort we consider appropriate for establishing targets. Instead, we are tracking down information from other analyses, of New Jersey or other comparable states, with which we can estimate what the impacts might be here. We are searching such information in published literature, on the web, through listservs, and in particular through the participants in our working group.

Stakeholder Input in Setting Targets

As we begin to understand what could be achieved in New Jersey under different technology and policy scenarios, we will launch a set of stakeholder review processes to actually set targets. These will engage a broader group of organizations and individuals in consideration of which options we consider realistic or acceptable, and thus what level of targets we will aim to reach. We are looking to members of the energy targets working group to help in this process, by bringing in their colleagues and engaging them in discussion of targets that may affect them.

How You Can Be Involved

Please join us in the process of setting energy targets. The value of the targets will be directly related to how many New Jerseyans agree with them. If you are closely engaged in energy issues, you may want to be part of the core working group. If you can't be that involved, but you care about energy use in the state, please join the stakeholder input process as we come closer to setting targets. We all consume energy. If targets have an impact on policy decisions they will affect all of us.

If you would like to join us, please send an email to Joy Hecht, Executive Director of the Sustainable State Institute, at jhecht@njssi.net.

If you would like more information as the process proceeds, please check our website, where we will be posting all working documents as they become available.