Fact Sheet — Energy Supply & Use Indicator

The Energy Future

Building Solutions

- In both remodeling and new construction, green design and building practices are increasingly being employed to reduce energy usage and take advantage of renewable resources in the Cape & Islands region.
- The Woods Hole Research Center's Ordway Campus integrates high-efficiency design and construction features with off-the-shelf technologies to greatly decrease overall energy needs. Photovoltaic (PV) and other renewable systems meet most of the institution's actual needs, while near-term installation of a wind turbine is planned to make the Ordway Campus completely energy independent.

In green buildings, active and passive solar energy solutions, including rooftop PVs and daylighting, reduce demands for energy from off-site sources. (credit: WHRC)

Electricity Solutions

- The potential exists for a substantial near-term increase in electricity generation from renewable resources and cleaner fossil-fired systems.
- Many local municipalities are exploring small on-shore wind energy projects, and both small and large offshore wind projects have been proposed in the region. In addition, the number of rooftop PV systems in Cape Cod communities is expected to double within the next couple years.
- By 2007, the Cape Light Compact estimates that its energy efficiency programs will be decreasing regional electricity demand by a minimum of 6.4 MW while generating major reductions in costs, fossil fuel consumption, and emissions of pollutants and greenhouse gases.

Transportation Solutions

- In 2002, Cape Cod dealers sold 87 hybrid gas-electric vehicles, and 2003 sales suggest continued growth in local market share for this cleaner personal transportation option. A growing number of local automobiles are running on biodiesel, a renewable and domestically produced alternative to conventional diesel fuel.
- Vehicles powered by fuel cells running on hydrogen represent the ultimate approach for reducing emissions of pollutants and greenhouse gases, as well as reliance on foreign oil supplies. A pilot-scale demonstration project proposed for Cape Cod would blend wind energy, hydrogen production, and fuel cell technology. This integrated system would power vehicles and serve electricity and heating loads in built environments, helping establish the feasibility of a truly sustainable regional energy economy.

Policy Solutions

- The Massachusetts Renewable Portfolio Standard is expected to significantly expand the role of renewables in meeting future electricity demand in the Cape & Islands region.
- Falmouth and Barnstable are participating in the Cities for Climate Protection program, under which they are quantifying community-wide greenhouse gas emissions and taking measures to reduce them.
- Barnstable County and the Cape Light Compact are considering creation of a retail interface to the wholesale electricity market. This innovative arrangement could reduce local electricity rates and provide local consumers with access to green power through long-term purchase agreements with renewable energy producers in the Cape & Islands region or elsewhere on the New England grid.

The facts presented above are abstracted from the 2003 Cape Cod Sustainability Indicators Report*, available at www.sustaincapecod.org. For more information contact Chris Powicki, participant in the Cape & Islands Renewable Energy Collaborative and principal of Water Energy & Ecology Information Services, chrisp@weeinfo.com, 508.362.9599.*