

## Mutual Benefits

Louise Hardiman, Principal Transportation Planner and Sustainability Planner of Massachusetts's Southeastern Regional Planning and Economic Development District (SRPEED) emphasized the mutually beneficial relationship between the community and UMD interns and faculty and student research. "Interns," she said, "are able to gain real-life experience while helping local governments and residents, as in the weatherization program in New Bedford, in solving the real-life problems that today's difficult economic circumstances present to us. This collaboration also provides practical research opportunities—whether in public policy and engagement, or in technical solutions to developing renewable energy or in using art to educate the public."

"The University is a logistical place," she continued, "with resources to facilitate meetings and presentations. The support to facilitate public meetings is certainly a benefit of working with them. The meetings have been well-attended, thought-provoking and interesting to many different kinds of people who attend. The exchanges between students, faculty, professionals and the public have been dynamic. It has been a benefit for the University to become connected with the community and it has been a benefit for the community to learn about and take advantage of what the University has to offer."

### About Clean Air-Cool Planet

Clean Air-Cool Planet is the leading science-based, non-partisan, non-profit organization dedicated solely to finding and promoting solutions to global warming. Through our Climate Policy Center we develop and promote economically efficient and innovative climate policies. CA-CP provides hands-on assistance to companies, campuses, communities and science centers to help them reduce their carbon emissions while celebrating commitment, innovation and success in practical climate solutions that demonstrate the economic opportunities and environmental benefits of action on climate change. Find out more at [www.cleanair-coolplanet.org](http://www.cleanair-coolplanet.org).



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## Case Study



## UMASS Dartmouth: Sustainability beyond campus borders

### Making a Vision a Reality

UMASS Dartmouth Director of Campus and Community Sustainability Susan Jennings was one of the regional leaders and stakeholders that the Southeastern Regional Planning and Economic Development District (SRPEDD) convened to create a vision for a sustainable region by 2060.

It is a vision that includes a diverse local economy centered on integrated business clusters connected by a clean-energy transit system. It envisions a region that is largely self-sufficient for its food with thriving local agriculture and a robust fishing industry, where sustainability is integrated throughout the curricula at all levels of education, and universities and colleges are not only centers of lifelong



*"The biggest benefit of working with the Office of Campus and Community Sustainability is the enthusiasm and leadership shown in pushing sustainability in the region forward. The passion and creative thinking of the University students and the faculty and staff at the Sustainability Office injects energy into everyone else's efforts, including our own. It gives us a new way of looking at problems to be solved and our role in doing that. At the same time, we give them the 'on the ground' context."*

**Louise Hardiman, Massachusetts Southeastern Regional Planning and Economic Development District**

learning, but also engines for wise economic development.

The Office of Campus and Community Sustainability (OCCS) at UMASS Dartmouth is actively working to make that future a reality. While undertaking on-campus initiatives such as creating a minor in sustainability and a greenhouse gas reduction plan, the OCCS is always working to take its on-campus experiences to the region. For Susan Jennings, sustainability has no borders and on-campus efforts are closely allied with, and dependent on, regional change. Because the campus's environmental impact – or footprint – extends beyond the campus plant itself, so too must its solutions. And with this perspective, Ms. Jennings has opened up a region full of sustainability and low-carbon learning opportunities for UMASS Dartmouth faculty and students.



**University of Massachusetts Dartmouth**, located in North Dartmouth, MA, was founded in 1962 to serve the growing Southeastern Massachusetts community. The campus was designed by architect Paul Rudolph as a dense urban-like campus ringed by an access road and parking lots. This plan captured the centrality of the automobile at the time and made the campus easily accessible for commuter students throughout the region. Architectural and planning paradigms have shifted, and although the school still envisions itself as a hub, it is now involved in a regional sustainability initiative which, among other things, works to displace the centrality of the automobile. As UMASS Dartmouth redesigns its campus away from the car, it's moving the region towards more sustainable transportation and land-use planning.

## Sustainability: “A Conversation Starter”

UMASS Dartmouth hosts quarterly workshops as part of the “Southeastern Massachusetts Regional Sustainability Exchange” whose goals are “to build a regional collaborative working toward a sustainable future, and to give communities the resources they need to move toward economic and environmental sustainability.” For Ms. Jennings, these meetings begin conversations and collaborations between individual towns that would not have otherwise happened.

Sustainability is, in Ms. Jennings’s words, “a conversation starter. No body knows exactly how to move forward to create the best low-carbon future. We figure out where we want to go in conversations with each other.” And for Ms. Jennings, an immediate result of those conversations is a re-energizing of curricula and countless research opportunities for faculty and students. Community partners, in turn, are thrilled to include students in their sustainability challenges. The result? A region moving quickly to the low-carbon future with UMASS Dartmouth graduates leading the charge.

## Affordable Homes that are Affordable for Life

UMASS Dartmouth faculty and students have worked with Habitat for Humanity to create the first sustainable solar home built for Habitat in Massachusetts. The home design integrates locally constructed concrete forms with structural insulated panels for a tight and highly-insulated building design. The house boasts some of the best resources for high-performance home design, including a heat recovery ventilation system, radiant floor heating, evacuated tube solar hot water panels, and solar slate photovoltaic panels. Students participating in the projects are veteran Habitat for Humanity volunteers and many also participated in UMASS Dartmouth’s Solar Decathlon project.

## Weatherization Technician Training

A related effort at the school is OCCS’s Southcoast Massachusetts Weatherization Technician Training Program. Developed in partnership with the Greater New Bedford Workforce Investment Board, Inc., the Greater New Bedford Career Center, and Bristol Community College’s Center for Business and Industry, the training program provides entry-level weatherization education, skills development, and employment opportunities to under-employed local residents.

The program is designed to integrate the classroom with real-world experience. Trainees spend 16 hours per week in weatherization work, rotating between three contractors and crews. Combined with classroom hours, those who complete the 160-hour program will receive a Weatherization Technician Certificate.

## Sustainability Summer Camp: Changing the World One Popsicle-Stick Turbine at a Time

Forty campers at UMASS Dartmouth’s first ever sustainability summer camp learned about the connections between food, energy, transportation, and waste in a week-long project in which they designed their own sustainable city. Equipped with practical information after having visited the New Bedford landfill and wastewater treatment facility, the middle school-aged campers tackled perennial planning challenges like waste-water treatment, landfill management, energy use, and local food production with innovative solutions – and actualized these systems out of popsicle sticks, play dough, aluminum foil, and other materials.



In encouraging the campers to create their own cities, they were able to employ systems-thinking to problem solving: campers quickly realized that landfill management couldn’t be solved without recycling programs, or food transportation reduction without dedicated land for diverse food production within the city itself.

The impact of the camp has spread as campers have gone on to become sustainability champions at home and at their schools in Dartmouth, New Bedford, Fall River, and Westport.

In the words of one parent:

*“I just wanted to take a minute to tell you how much my daughters... enjoyed their camp experience. Not only was it liberating for the girls to participate at an event on the UMass Dartmouth campus, but it also provided them with the opportunity to brain storm strategies for a better environment. This experience, I might add, has carried over into their daily routines. As a family, we are proactive in recycling and are making better choices in our everyday use of products which can affect the environment. Thanks again for developing such a wonderful program.”*

## Growing a Sustainable Region

In addition to producing young low-carbon leaders, UMASS Dartmouth is actively involved in growing local food. As part of its campaign to support local food production, the OCCS hosts a local farmers’ market on campus every Friday for the campus community and Dartmouth residents. The market is the popular face of a much larger effort by UMASS Dartmouth faculty, students, and staff to support the local food shed by undertaking a food shed and security analysis of the region. This analysis will be the base from which SRPEDD will work with local towns to create land-use planning paradigms which better support a diverse local food economy.

