Lowell Center for Sustainable Production

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MINUTES
A ROUNDTABLE DISCUSSION TO ADVANCE CLEAN TECHNOLOGIES IN WESTERN MASSACHUSETTS

SEPTEMBER 29, 8:30-11:30 AM

On September, 29, 2008, 45 people from government, business, labor, environment, and academia participated in the Western Massachusetts Clean Tech Roundtable. The Roundtable was sponsored by the Lowell Center for Sustainable Production (the Lowell Center) at the University of Massachusetts, Lowell; Senator Benjamin Downing; and Representative Daniel Bosley. It was hosted by Berkshire Community College and held at the Joseph Scelsi Intermodal Transportation Center in Pittsfield.

The Roundtable was part of a series of three regional roundtables held throughout the state as part of the Lowell Center's *Clean Tech Initiative*. The goals of the Clean Tech Initiative are to make the case for orienting our economy around all clean technologies, identify technologies in which Massachusetts is poised to lead, and recommend policies and actions to achieve this leadership. The Initiative's initial report, *Clean Tech: An Agenda for a Healthy Economy*, identified five fields in which Massachusetts already possesses leadership:

- clean energy,
- green buildings,
- emerging materials (such as bio- and nano-based materials),
- materials reuse and recycling, and
- safer alternatives to toxic chemicals.

Information on the Clean Tech Initiative, the initial report,and notes from other regional roundtables and attendees, can be found at http://sustainableproduction.org/proj.tech.abou.shtml

The purpose of the Roundtables is to learn about strengths, challenges, and opportunities for growing the clean tech economy in the regions and state; to raise awareness about the importance of clean tech to the environment and economy; to gain information that will inform key policy makers and activists; and to help create partnerships that will ultimately help move the clean tech economy forward. This Roundtable covered the four counties in the western part of the state: Berkshires, Hampshire, Franklin, Hampden. The other two Roundtables were in the Merrimack Valley and the 495/Metrowest region.

The discussion opened with welcoming remarks by State Representative Dan Bosley and Senator Ben Downing. Representative Bosley stressed that progress can only be made through a range of concerted efforts. He gave examples of models of clean energy and materials efficiency taking place in the region. He also pointed to the state's new Green Jobs Bill, spearheaded by Senator Downing, that recognizes the immediacy of the opportunity by putting sixty-seven million dollars into green jobs development and training in the next five years.

Senator Downing stressed that clean technology and green jobs are critical for the future of this country. He said it is important to make sure everyone working on these issues is communicating with each other. He spoke of needing incentives for renewable energy technology and said that Massachusetts has challenges trying to get firms to locate here, including making sure we have a workforce with the skills needed to attract them. He added that Massachusetts has more venture capital in the clean energy sector

than any other state outside of California, but middle class manufacturing jobs also need to be created. In wrapping up he stressed business development, funding the gap between start up capital and traditional funding, a workforce competitive trust fund model and partnerships between the higher education community and the work force.

Cathy Crumbley, Lowell Center Program Director, then spoke about how UMass Lowell is looking at ways in which systems of production and consumption are leading to environmental and health problems, and finding solutions for those problems. She spoke of their work with the Toxics Use Reduction Institute and said we should be proud of Massachusetts' Toxics Use Reduction Act, saying that its passage has reduced toxic emissions in this state by about half. She also spoke of work with chemicals policies and with multinational industries, saying that companies in Massachusetts are struggling to keep up with what's happening in Europe, while Europe needs help developing markets. Surely, she said, Massachusetts companies can compete more effectively on the international stage. What is needed is a way to tie innovation together with vision to lead to a more environmentally sound sustainable future. Clean technology is the future.

Amy Perlmutter, consultant to the Clean Tech Initiative, provided some additional background to the project and findings from the Initial Clean Tech report and led the discussion with participants. In summary, the region's quality of life, natural and built resources, highly educated populace, and proximity to major markets are part of what the region has to offer. However, costs of doing business are high, businesses are older, and college and university students don't stay in the region to develop the next generation of clean businesses and green jobs. The need exists to create partnerships to identify, support, and share information about business opportunities. Colleges and universities can play a larger role in commercializing new technologies locally, serving as a clearinghouse of information, and developing partnerships. Clean tech businesses that could be supported in the region include markets for recyclables, weatherization and energy efficiency, green building, and green chemistry. Certain state programs and permitting are a hindrance to supporting clean industries and should be looked at.

Major themes focused around jobs and job training, education, permitting, infrastructure, energy costs, state policies, and opportunities that could be created through building partnerships. Additional ideas and details are outlined below.

The combination of environmental awareness, infrastructure, job-training entities, and a well-educated populace are **strengths** to support and attract green businesses:

- Jobs
    - Career centers, Greenfield Community College, and Regional Employment Boards already help train potential employees in green careers, as do building trades apprenticeship training centers
    - Employers, such as CET (Center for Ecological Technology), are hiring trained people in weatherization
- Education
    - The region has a highly educated population, with a
    - High awareness of environmental issues
- Infrastructure:
    - A strong NGO sector exists, including Coop Power and the CET
    - Industrial assets can reduce the need for new construction
    - Materials reuse and green building companies are already here, with green chemistry and advanced materials emerging
    - Access to nature contributes to a high quality of life
    - Natural energy resources abound, such as wind, hydro and biomass
    - Three out of four counties have come together to agree on smart growth issues and share a desire to be greenest region in the world
    - Major markets in Albany, New York City, and Eastern Massachusetts are nearby

- There is an entrepreneurial spirit
- The legislative delegation is highly valued

Challenges to growing the regional clean tech economy relate to the high costs of doing business, including energy and permitting; the age of the region's businesses and infrastructure; and the need to attract and retain entrepreneurs and talent from local colleges and universities:

- Jobs and Training
  - Some HVAC installers don't know how to install solar
  - College students don't stay in area to become entrepreneurs- Sun Ethanol is a model of what needs to happen more: it was spun out of UMass, created a commercialization vehicle, hired students, brought together those with business and technical skills.
- Infrastructure
  - Old businesses are slow in adopting new technologies in their processes and built infrastructure
  - There is a lack of private research labs that could support new R&D
  - Markets for recyclables are distant
  - The cost of doing business- energy costs are rising 40-80%
  - Even though there are a large number of vacant industrial sites, the time, costs, and challenges of permitting and cleaning up these spaces make it easier to build new facilities in open space
- Policy
  - State brownfield cleanup money is only available for public, not private, entities
  - The State's Environmentally Preferable Purchasing (EPP) contract does not open frequently enough for new companies to get their products on the list
  - Renewable Energy Trust Fund reporting is too substantial and hinders business participation, although this may change with RETF move to the Executive Office of Energy and Environmental Affairs
- Education
  - PhD level people are needed in the pipeline to create new ventures
  - 101 communities in the region are run by volunteer boards whose members need more education on issues including planning and permitting
- Permitting
  - Permitting is too expensive, the costs keep companies from investing money back into business, hiring staff, and investing in new technologies and projects
- Identity
  - The region tends to relate more to NY State and is sometimes ignored by Boston institutions- the New England Clean Energy Council has no presence in the region

There are **opportunities** for growth in job training, business development, infrastructure improvement, partnership building, and policy changes:

- Jobs and Training
  - New job training programs should be coordinated with employers, and include basic work-ethic skills where needed
  - A central listing of available green jobs would help link people to employment
  - Expand and seek additional partnerships with construction trades
  - An Emerging Green Builders Program, similar to New York's, would be useful
  - Train emerging and potential entrepreneurs in business skills, include people of color
  - The New England Clean Energy Council should do more concerted outreach in the region for its Fellowship and other programs
  - The population tends to be under-employed and ready for better jobs- Franklin and Hampshire counties make about 66% of state average wage
- Business Opportunities

    - High energy costs provide opportunities to create a range of jobs in weatherization, installation of energy efficient HVAC, etc, and opportunities for job training programs.
    - Hydro-electric energy may have more promise
    - Businesses are needed that process or use recyclable materials, including construction and demolition material.
    - Existing platform industries should be recruited to tie into the clean tech economy, and assistance provided in helping with that transition (an example was provided of storm window manufacturers)
    - More outreach on LEED (green building certification) is needed to builders, manufacturers of products, providers of services, etc. to create more demand for green building
    - Redevelopment of the existing infrastructure, including site clean up and energy efficiency, would help preclude the need for new construction
- Infrastructure
    - Industrial and residential buildings need energy efficiency retrofits
    - A better rail system is needed to support businesses
    - Lab or incubator space would help support early stage companies
- Partnerships and Assistance
    - Existing businesses that may be low in the supply chain can be helped to find opportunities supplying clean technologies
    - Assistance can also be given to other existing businesses to supply and/or be markets for clean tech
    - Research in NY state can be tapped into to commercialize in this region
    - UMass can play more of a role in fostering partnerships, commercializing technologies locally, and encouraging students to stay in the region and start businesses.
    - Create more opportunities to connect people. A clean tech 'forum' can be created to link people and issues, create partnerships, and help environmental businesses support each other; UMass has started this with its Opportunities Fair
    - Be sure that partnerships include labor and community as well as businesses
- Policy and Permitting- what the state can do
    - Create a simpler permitting process for projects that are beneficial to the environment
    - Have the state provide regional permitting circuit-riders focused on environmental permitting to help shepherd state and federal permits
    - Create more incentives and policy changes to make it easier to retrofit industrial infrastructure
    - Pass the proposed Safer Alternatives Bill to create new business opportunities
    - Change the EPP approved vendor/product process to allow more frequent entry of new products