

Developing a Green Job Strategy for Older Industrial Cities

Pittsburgh's Allegheny River Towns look to Green Jobs for Economic Revival

Evans Paull

This article will appear in the October issue of Brownfields Renewal - <http://www.brownfieldrenewal.com/>).

Older industrial cities face a common plight – a surplus of vacant and under-utilized former industrial land, combined with poor economic conditions and an unfavorable lending environment, leading toward “redevelopment stagnation.” Some have postulated that matching up green jobs with brownfield sites in these older communities is the way to get redevelopment moving again, while also contributing to urban sustainability goals, a classic win-win-win for jobs, community development, and smart growth/sustainability.

It sounds so simple and obvious, but how does one connect-the-dots? A team of economic development consultants were recently tasked with that challenge – developing a green job strategy for a group of older industrial towns strung along the Allegheny River, just north of Pittsburgh. CWS Consulting, Redevelopment Economics, Sustainable Strategies 2050, and Richard Greene joined forces and developed a strategic plan for bringing the benefits of the green economy to the riverfront communities of Blawnox, Etna, Millvale, Aspinwall, Sharpsburg, O'Hara and Shaler, all members of the Allegheny River Towns Enterprise Zone (ARTEZ), which was the client for the work.

For this brief write-up the author will concentrate on the process involved in developing the strategy, which has potentially broad application, rather than the details of the recommendations, which were more specific to ARTEZ. The development of the strategy involved the steps outlined below.

Estimating Green Job Growth Potential. The consultant team did not do any original research in this area, but, after reviewing widely ranging national and state projections, the team put the most stock in a regional assessment by the Three Rivers Workforce Investment Advisory Board.

*Conclusion: the Southwest Pennsylvania region can realize an increase of 11,600 green jobs bringing the total to close to 30,000 green jobs by 2015. Also of note, a related report found that many of these jobs will be either at an entry level or will require typical blue collar skills.*¹

Evaluating the Local Community's Economic Strengths Relative to Green Industry. This is the big picture test – is Pittsburgh/Allegheny County showing economic strength in the green job sectors? The consultant team examined this from two different angles. First, the team used economic analysis tools to evaluate employment trends in the green job sectors of the economy. Using location quotient and shift-share analysis, the team

¹ GSP Consulting, “Southwest Pennsylvania Green Jobs Analysis and Action Plan,” 2009

concluded that the area has particular strengths in computer and electronic product manufacturing, electrical equipment and appliance manufacturing, machinery manufacturing, and waste management and remediation services, all key sectors for green job growth.

Second, the team evaluated whether a corporate site location decision-maker was likely to consider the Pittsburgh area. The team evaluated the region by putting two kinds of hypothetical green businesses (one manufacturer and one R&D) through a site location screening and ranking mechanism that is typical of that used by site location consultants. Pittsburgh passed both tests, ranking second out of 17 competitive cities for the green manufacturer and third for the R&D company.

Conclusion: The Pittsburgh area has economic strengths that provide a solid basis for green job growth.

Local Green Businesses as Building Blocks. The next step was moving from macro to micro – identifying individual green businesses that are already in the ARTEZ area and testing their potential to become engines of future growth.

This is where the team and the client were surprised to find more strength and growth potential than was previously assumed to be the case. We found at least ten local businesses that are making headway in the green economy: four in renewable energy production; five in green manufacturing; and one in energy efficiency services to businesses.

To illustrate the evolution and the potential for growth from green manufacturing, there are two interesting examples of conventional businesses that are offering a new green product line.

- Exterior Technologies - Manufactures industrial and commercial security windows and skylights. The new green product line adds a translucent solar panel skylight.
- Converteam - Manufactures (installs and services) electrical systems for, for example, naval vessels. The new green product line is electrical systems for solar, wind, and wave energy.

Converteam and Ex-Tech have expansion plans connected to these green product lines. In fact, of the ten identified green businesses, nine have expansion plans totaling well over 500 jobs in growth potential. This evolution of conventional businesses into green product lines is a recurring theme in the Pittsburgh area. For example, mirror manufacturer Flabeg Corporation developed a new line of concave mirrors for solar applications, resulting in an expansion that has created 50 jobs and may add 150 more.



Flabeg Corporation, now manufacturing concave mirrors for solar
(used with permission, FLABEG)

Conclusion: ARTEZ can have a successful green job campaign solely by working with existing businesses and facilitating their retention and expansion.

Green Assets and Competitive Advantage. The third step was to examine the area's "green assets," i.e. to identify Pittsburgh's green idea generators, labor market, incentives, and marketing advantages.

The marketing resources are in place - there is a growing chorus of green and sustainability advocates and marketing mechanisms, and the region is now promoted under the interesting motto, "Black and Gold Goes Green." Similarly, Pittsburgh gets a check in the financial incentives column, based particularly on the strengths of the state's \$650 million Alternative and Renewable Energy bond issue.

However, it is the "green idea" generation category that Pittsburgh stands out. Carnegie Mellon and University of Pittsburgh have a total of at least six research institutes devoted to varying aspects of sustainability. Additionally, the National Energy Technology Laboratory is located in Pittsburgh and is supporting, for example, research and development of one ARTEZ area business - Media Process and Technology, which is developing a technology that has the potential to improve the efficiency of fuel cells.

Another asset that sets Pittsburgh apart from competitors is the labor force. There are two aspects to this. First, that many green jobs require labor skills similar to those that were prevalent in the industries that Pittsburgh lost over the last two decades - sheet metal workers, machinists, plumbers, pipefitters, and steamfitters.² That part of the equation is

² GSP Consulting, "Southwest Pennsylvania Green Jobs Analysis and Action Plan," 2009

shared by many older industrial communities. However, the other needed skill level is at the higher education end – science, engineering, and technology. Here the Pittsburgh universities again come into play and give Pittsburgh a competitive edge. The consulting team noted at least three examples of start-up green businesses coming directly out of Pittsburgh university-related research. Each is currently small but each has the potential for vast growth.

One of these University outgrowths is an ARTEZ start-up business (and a client for their business loan program), Eco-Clean Burners. Eco-Clean is attempting commercialization of a pioneering combustion technology that uses waste plastic as its fuel source and gives off essentially no emissions.

Conclusion: The Pittsburgh area has outstanding green assets, particularly in that the three major universities provide both research output and the high level personnel that can form the basis of both external attraction strategies and internal growth strategies. The potential for start-up, home-grown green businesses is exceptionally high.

Strategy Development/Implementation Plan. For this limited write-up, the emphasis is on the process rather than the specifics of the strategy/implementation plan. Just to summarize the major elements of the strategy/implementation plan, the recommendations were in the following areas:

- Business retention;
- Attracting and growing start-ups;
- Attracting investment from outside the region;
- Using information as a marketing mechanism;
- Job training and manpower;
- Green tech incubator;
- Financial incentives;
- Public policy and leading by example;
- Matching up available sites and growing businesses.

Overall Conclusion: For ARTEZ the cornerstone of the plan is business retention and accommodation of the growth plans of the green businesses that are already present in the community. These growing businesses can be the basis for a green tech cluster that can then be used help attract supply line and other complimentary business investment, forming the basis for the evolution to the green economy.

Evans Paull is Principal of the consulting business, Redevelopment Economics, which specializes in economic development and analysis services for brownfields, greyfields, preservation, and other smart growth redevelopment programs and projects. See: www.redeveloementeconomics.com, or contact Evans at 202-329-4282, ev@redeveloementeconomics.com

