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Economic Development Journal
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TechLink
Developing Technology Partnerships with the Department of Defense

Bringing Back the Culture of Entrepreneurship
The Inventors and Entrepreneurs Club of Juneau County, Wisconsin

Webster Goes Green
Green Commercial Building Tax Abatement Program Launches in Webster, Texas

The Business Incubator on Wheels
Bringing Entrepreneurial Services to the Rural Communities in Louisiana

Chesapeake Science & Security Corridor
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Saving America's Industrial Heartland Through Electric Rate Incentives

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Ian Bromley, FM, MA, MBA
IEDC Chair

dear colleague

Over the past year, I have been privileged to represent the IEDC membership as chairman of the Board of Directors. This has been a dynamic year for IEDC as we have accomplished so much. I had three priorities in 2009: advance three strategic goals identified by the Board, which are a focus on globalization, sustainability, and entrepreneurship; advance the use of technology by IEDC; and further develop the "I" for international, in IEDC.

My first priority as chairman was to advance the three strategic goals stated above. For all three goals, IEDC staff has worked diligently to feature these topics in all our newsletters, journal, conferences, web seminars, and training courses. In addition, we have also generated specific new resources to help our members better manage each of these three critical economic development topics.

For the goal of globalization, the Economic Development Research partners sponsored case studies of different size communities that are effectively exploiting the global economy. This resulted in a publication called "Roadmap to Globalization," which became available to our members earlier this year. Concerning sustainability, IEDC released the "Climate Prosperity Guidebook," which explains the growing importance and urgency of sustainable economic development; the economic opportunities that sustainability offers; best practice case studies and highlights; and federal activities. This is a how-to guide to help communities undertake climate prosperity planning.

In expanding the use of technology by IEDC, this year saw the creation of groups on both LinkedIn and Facebook for IEDC conferences. The organization also changed its web seminar software to offer additional options and better service to web seminar audiences. And in response to the global recession, IEDC instituted the Recovery Zone blog on its website to help members stay abreast of federal funding opportunities in the U.S., and provide other resources to help retain and grow jobs and investments during these challenging economic times. It is my hope that IEDC will continue to find innovative ways to incorporate new technology into the services it offers members.

My final priority was to further the international partnerships, representation, and membership in IEDC. As chairman I have participated in numerous international conferences including OECD/LEED Conference on Local Responses to a Global Crisis: International Strategies for Recovery in London, England; ICSC's Conference in Canada; Quebec Association of Economic Developers; and the WAIPA World Investment Conference in Milan, Italy. In addition, we partnered with the International Association of Science Parks for our spring technical conference in Raleigh, North Carolina. IEDC will continue to grow its international membership and relations through the International Network of Economic Development Associations Partnerships.

I could not have achieved all of these goals alone. The entire Board, Jeff Finkle, and all the IEDC staff have been outstanding in supporting me throughout the year. I especially want to thank the IEDC Governance Committee for its commitment and support: Robin Roberts Krieger, FM, immediate past chair; William E. Best, FM, vice chair; Dennis G. Coleman, CEcD, FM, secretary/treasurer; Barbara K. Johnson, chair, External Member Relations Committee; William C. Sproull, chair, Planning and Business Development Committee; and James R. Kinnett II, CEcD, FM, chair, Performance Oversight and Monitoring Committee.

Ian Bromley, FM, MA, MBA
IEDC Chair

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INTERNATIONAL
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techLink

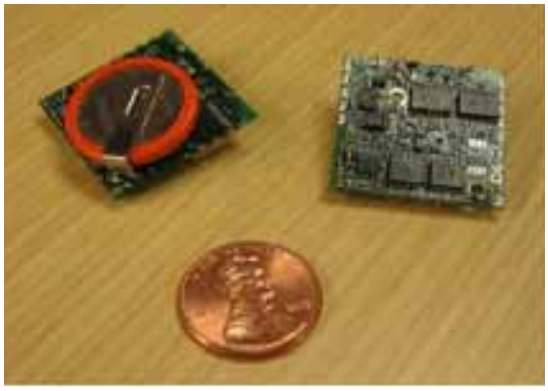
By Will Swearingen, Ph.D.

INNOVATION AND ECONOMIC DEVELOPMENT IN THE UNITED STATES

Technology innovations are well-recognized drivers of economic development. In fact, close to half of the economic growth in the United States since World War II can be attributed to advances in technology. In order to foster the development of new technology, the US currently invests around $350 billion a year in research and development. This is equivalent to between 2 and 3 percent of the nation's Gross Domestic Product (GDP). Approximately two-thirds of this funding comes from the private sector, primarily large corporations. The federal government accounts for most of the rest, some $120 billion a year.

Although federal R&D funding is only about half the size of the private sector's R&D investment, it plays an essential role in the nation's innovation enterprise. Federal dollars fund a high percentage of the nation's *early-stage* research, from which path-breaking new discoveries, new technology fields, and major new sectors of the economy emerge. The Internet and GPS are two examples of technologies that are ubiquitous today, which originated from US Department of Defense funding.

Federally funded R&D is conducted by a variety of organizations, including corporations, universities, federal laboratories, and non-profit research centers (*see* Figure. 1). Industry receives the largest share of federal R&D funding – around 42 percent. Universities and colleges receive around 22 percent, and non-profit research centers around 7 percent. Federal laboratories, including those that are contractor managed (FFRDCs), account for the remainder, approximately 31 percent. Major innovations often involve collaborations among several of these sectors. For example, GPS was developed with DoD funding through the combined efforts of the Applied Physics Laboratory at Johns Hopkins University, the Naval Research Laboratory, and the Aerospace Corporation.



A miniature power device is being developed for DoD by a Fargo, North Dakota, company under a TechLink-facilitated contract.

The private sector is responsible for the vast majority of the innovations that drive the country's technology-led economic development. In fact, according to 2008 statistics from the US Patent and Trademark Office (USPTO), US corporations were awarded a total of nearly 70,000 patents – approximately 82 percent of the US patents received by US entities. US individual inventors accounted for around 12 percent of the patents. US universities and colleges accounted

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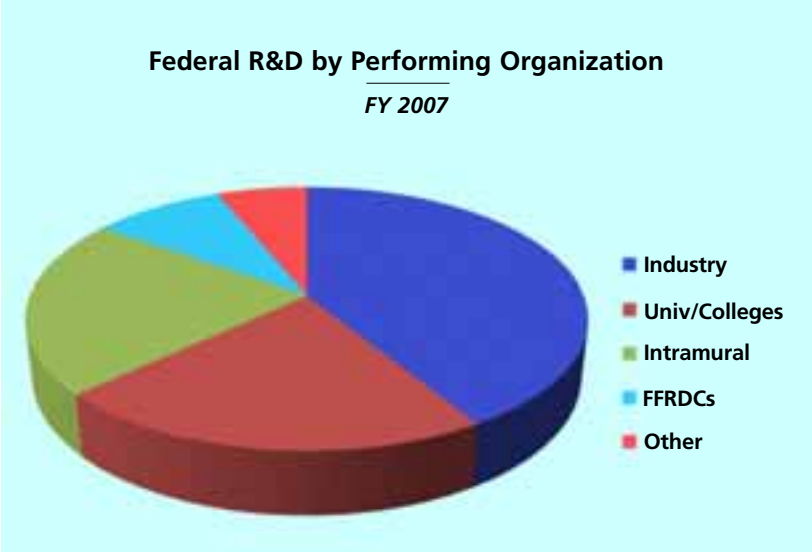
DEVELOPING TECHNOLOGY PARTNERSHIPS WITH THE DEPARTMENT OF DEFENSE

This article focuses on a "partnership intermediary" organization, TechLink, which fosters technology-led economic development by helping companies to access the diverse technology, unique technical capabilities, and sizeable research-and-development funding in the US Department of Defense (DoD) lab system. From its base in the Northern Rocky Mountains at Montana State University, TechLink operates nationally, having brokered partnerships between DoD labs and companies in 35 different states. TechLink's primary activities are helping to establish (1) licensing agreements that give companies access to DoD-developed technology; (2) cooperative R&D agreements between DoD labs and companies; and (3) R&D contracts between DoD and small businesses for new technology development.

FIGURE 1



Source: AAAS 2008

for 4 percent, and federal laboratories for 2 percent. (Note: Foreign corporations and individuals now receive approximately half of all patents awarded by the USPTO).

FEDERAL LABORATORIES AND TECHNOLOGY-LED ECONOMIC DEVELOPMENT

Despite the fact that federal laboratories generate only 2 percent of the US patents awarded to US entities, these labs play a significant role in fostering technology-led economic development. While the percentage of patents awarded is relatively small, it includes an annual total of approximately 1,400 patents in virtually every major technology field. Most of these technologies are available to industry through licensing agreements, enabling companies to develop cutting-edge new commercial products and services. Indeed, federal laboratories are mandated by Congressional legislation to engage in technology transfer in order to enhance the nation's economic competitiveness.

There are approximately 315 federal research laboratories in the United States, representing 11 US government agencies. California and the Eastern Seaboard are particularly well-endowed with federal labs. However, almost every state has at least one federal research laboratory. In addition to their cornucopia of inventions, these federal labs have unique equipment, facilities, and expertise that can be tapped into to foster economic development. Several different industry-friendly mechanisms exist to enable companies to access federal lab capabilities. These include cooperative R&D and test service agreements.

Besides offering industry access to their technical capabilities, US federal laboratories and agencies are a major source of R&D funding for US technology companies. The Small Business Innovation Research (SBIR) Program and its companion Small Business Technology Transfer (STTR) Program provide major funding, on a competitive basis, to small technology firms throughout the United States. Indeed, these two programs are *the primary source* of R&D funding for the nation's small technology companies. Together, they provide around $2 billion in R&D funding each year to small companies. (For further information, see http://www.sba.gov and http://www.zyn.com/sbir/.)

DEPARTMENT OF DEFENSE

The Department of Defense (DoD) is the largest federal R&D organization in the United States, measured both by its overall budget and by the numbers of scientists and engineers engaged. Its approximately 120 labs account for around 30 percent of the patents awarded to the US government, a total of 412 patents in 2008 covering all major technology fields. In addition, DoD is a significant partner with the private sector in developing new technology. Currently, DoD has nearly 3,000 active cooperative R&D agreements (CRADAs) with industry – far more than any other agency. DoD also has by far the largest SBIR and STTR Programs, accounting for approximately half of all federal funding in these programs, or somewhat over $1 billion per year, which it awards to small businesses to explore and develop new technology.

The Department of Defense (DoD) is the largest federal R&D organization in the United States, measured both by its overall budget and by the numbers of scientists and engineers engaged. Its approximately 120 labs account for around 30 percent of the patents awarded to the US government, a total of 412 patents in 2008 covering all major technology fields. In addition, DoD is a significant partner with the private sector in developing new technology.

TECHLINK'S ORIGINS IN FEDERAL TECHNOLOGY TRANSFER

TechLink was established in Bozeman, Montana, in 1996 through an appropriation to the NASA budget sponsored by the Montana Congressional delegation. It was founded on an unusual premise: that a center helping companies to develop partnerships with NASA could foster technology-led economic development in Montana and the surrounding states. Its mission was to help companies gain access to cutting-edge technologies, facilities, and expertise in the nation's 10 NASA centers.

TechLink's original focus was on the traditional resource-extraction industries in the region, particularly agriculture, forestry, and mining. All of these industries had been suffering economically from global competition, depressed commodity prices, and – some claimed – unfavorable government policies and regulations. The hope was that these languishing industries could be reinvigorated with new technologies from NASA and collaboration with NASA scientists and engineers.

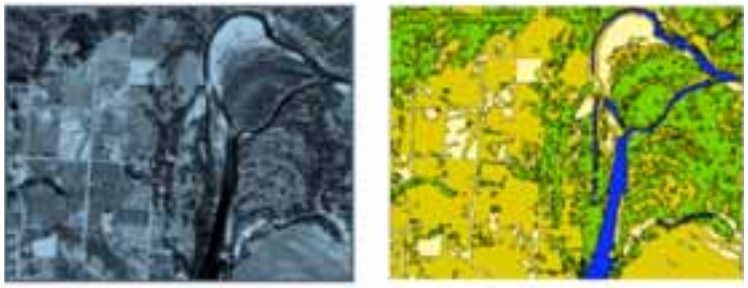
TechLink discovered during its first two years that traditional resource-extraction industries were not the best candidates for NASA-related technology transfer. One reason was the constrained financial resources and general conservatism of these industries, which made them reluctant to adopt new technology. Another reason was the nature of most NASA technology. Because of the agency's highly specialized R&D focus, this technology typically does not have the price-sensitivity or potential market size to be highly attractive to industry.

On the other hand, TechLink discovered that many companies in the emerging high-tech sector in Montana and the region were developing new technologies of keen interest to NASA. As a result, TechLink was able to broker a substantial number of cooperative R&D partnerships between the 10 NASA centers and small companies in the northwestern United States. Under these agreements, the partnering NASA centers and companies jointly developed new technology. Over a six-year period, from 1996 to 2002, TechLink brokered approximately 80 partnerships. While the majority were cooperative R&D agreements, these partnerships also included SBIR and other funding awards, patent license agreements, and even new company start-ups involving technology developed or funded by NASA.

For example, in 1998, TechLink helped to broker a cooperative R&D agreement between Integrated Geoscience of Helena, Montana, and NASA's Jet Propulsion Laboratory. This agreement focused on development of algorithms to automatically detect and classify features in remotely sensed imagery, such as satellite images of the earth. The company's impressive performance under this agreement led in 1999 to a sizeable SBIR award from NASA and creation of a spin-out software development company, Visual Learning Systems (VLS), in Missoula, Montana.

TechLink continued to help VLS to partner with other NASA and federal labs and to receive additional SBIR funding. In 2001, the company launched its first commercial product, Feature Analyst®. This product greatly simplifies digital cartography by enabling automated identification and "extraction" of features, including roads, buildings, vegetation, and water bodies, from all types of geospatial imagery (*see* Figure 2). By 2004, VLS had developed business partnerships with the world's largest geographic information systems (GIS) and remote sensing software corporations to sell Feature Analyst® worldwide as a plug-in module to these corporations' software programs.

FIGURE 2



Feature Analyst® enables rapid automated land classifications (right) from remotely sensed images of the earth (left).

Source: Overwatch Geospatial Systems

As a result of its success, VLS was acquired by Overwatch Geospatial Systems in 2006 (now a division of defense and aerospace contractor, Textron Systems). Today, VLS is a flourishing software development company in Missoula, with over 20 employees. Feature Analyst® and related software modules, LIDAR Analyst® and Urban Analyst™, are the leading analytical tools in their field.

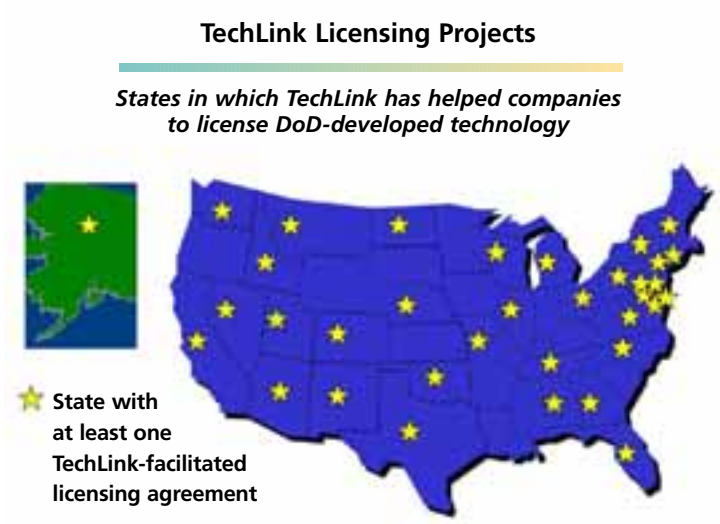
HELPING COMPANIES TO LICENSE DOD TECHNOLOGIES

In 1999, based on its success, TechLink received a Congressional appropriation to help broker technology transfer partnerships between DoD and companies in its region. This represented a major new growth opportunity. It also gradually transformed TechLink's activities and geographic focus.

With approximately 120 labs nationwide, DoD offered TechLink a greatly expanded field for developing partnerships with industry. In addition, it also offered a much broader and more diverse portfolio of technologies. DoD is developing cutting-edge technologies in all major technology fields in order to advance its worldwide defense capabilities. Technology fields range from advanced materials, aerospace, biomedicine, communications, construction technologies, electronics, and energy to environmental technology, lasers, optics, sensors, software, and weaponry. With an output of over 400 new patented inventions per year, DoD has accumulated thousands of technologies available to industry under licensing agreements.

In 1999, based on its success, TechLink received a Congressional appropriation to help broker technology transfer partnerships between DoD and companies in its region. This represented a major new growth opportunity. It also gradually transformed TechLink's activities and geographic focus.

FIGURE 3 TechLink licensing projects by state



As a new DoD "partnership intermediary," TechLink initially concentrated on increasing cooperative R&D agreements between DoD labs and companies in the northwestern United States for joint development of new technology. However, DoD soon gave it a new mission: increasing the number of DoD licensing agreements with industry nationwide. Companies need licensing agreements to use DoD inventions (usually patented) for development and sale of new products and services.

TechLink's licensing mission reflected an agency need. DoD far outpaced other federal agencies in the number of cooperative R&D agreements with industry. For example, in FY 1999, DoD had a total of around 1,350 active cooperative R&D agreements. However, it brokered only 32 licensing agreements with industry that same year.

Responding to its new assignment, TechLink broadened its geographic focus for marketing and licensing of DoD technology to the United States as a whole. In addition, it developed a *five-step process* to support its licensing focus:

1) Screening *all* DoD-issued patents and published patent applications for technology transfer potential. Criteria used included the following: technology development level, innovativeness of the technology, strength of the patent claims, and commercial viability.
2) Selecting a manageable portfolio of DoD technologies for active marketing to industry.
3) Engaging in highly focused marketing of the select technologies by conducting background research and directly contacting companies identified as promising licensing candidates.
4) Helping interested companies to evaluate the technologies for their intended applications, understand government licensing regulations, and prepare high-quality license applications and commercialization plans.
5) Remaining involved until the signing of the licensing agreement between the company and DoD lab to facilitate the flow of communications and to help resolve any problems that might arise.

TechLink's shift to a licensing focus resulted in a gradual increase in the number of new DoD licensing agreements. The number of TechLink-facilitated licensing agreements grew from 1 in FY 2000 to 32 in FY 2009. Concurrently, the overall number of DoD licensing agreements each year essentially doubled – increasing from 32 in FY 1999 to an average of 58 per year during the FY 2007-2008 period. By FY 2007, TechLink was brokering or facilitating slightly over half of all DoD licensing agreements with industry.

As of September 2009, TechLink had successfully brokered or facilitated over 200 licensing agreements between DoD labs and industry. These licensing agreements involved companies in 35 different states and the District of Columbia (*see* Figure 3). Figure 4 provides representative examples of TechLink-facilitated licensing agreements. They include:

- A Navy-developed biosensor that can rapidly detect food-borne pathogens, being commercialized by a Pennsylvania company to increase the safety of fresh produce;
- A human liver cell line developed by the Army's Walter Reed Institute of Research, which was licensed by a Maryland company to support development of a malaria vaccine;
- A safer welding cart developed by the Air Force, licensed by a Montana company, which is manufacturing and selling an improved version of this cart; and
- A miniature sensor developed by the Navy that enables affordable, real-time monitoring of water quality, licensed by a California company.

FIGURE 4

Examples of TechLink Licensing Projects

Pathogen sensor for food safety

License from Naval Research Lab to company in Carlisle, Pennsylvania.

Human liver cell line for malaria vaccine research

License from Army Walter Reed Institute of Research to company in Rockville, Maryland.

Safer welding cart

License from Air Force to company in Lewistown, Montana.

Low-cost water quality monitor

License from Navy to company in San Ramon, California.

Licensing technology from DoD or other federal labs provides companies with a number of distinct advantages. First, US government labs often have world-class scientists, engineers, and facilities that produce truly cutting-edge technologies in many fields. Second, these technologies often are at a later stage of development than innovations emerging from universities. Frequently, there is a working prototype. Third, licensing represents a fairly rapid way to acquire new technology around which to develop a new product or service. It is usually much faster to license than to develop new technology – even assuming that the company has the requisite R&D capabilities. Fourth, licensing the technology as opposed to developing it reduces the company's risk. This is because a relatively small percentage of R&D projects actually result in patented inventions. Finally, it is usually much less expensive for a company to license technology than to develop it in-house. This is particularly true when licensing from federal labs. US government labs typically are willing to license technology on favorable terms. Terms usually involve reasonable upfront payments and modest royalties on sales of products or services embodying the technology.

ESTABLISHING COOPERATIVE R&D AGREEMENTS

In addition to brokering licensing agreements, TechLink helps establish cooperative R&D agreements (CRADAs) between DoD labs and companies for developing innovations having both commercial and military applications. A major advantage of a CRADA is that it enables a company to leverage a federal lab's expertise and resources in developing a specific technology. This reduces the company's R&D costs and possibly provides access to unique capabilities. The benefits to the DoD lab are essentially the same. Under a CRADA, the collaborating parties can share information, personnel, materials, equipment, and facilities.

Federal labs are prevented by contracting regulations from providing funding directly to a company under a CRADA. However, CRADAs can establish good working relationships that lead to future contracting opportunities for the company. For CRADAs in which the majority of the benefit is going to the company, the company needs to cover the fair cost of the lab's personnel, materials, equipment, or facility use. However, in exchange, it gains access to often unique capabilities at a very reasonable rate.

In addition to providing a cost-effective way for a company to develop new technology, CRADAs have several other valuable applications. First, they enable companies to showcase their innovations and capabilities to DoD. For example, under a CRADA, a DoD lab can evaluate a company's innovation and provide suggestions for how to improve it to more fully meet DoD needs. Second, under a CRADA, a DoD lab can help a licensee of DoD technology to adapt the technology to the commercial marketplace. Third, CRADAs can enable companies to acquire valuable new intellectual property. Should any joint inventions occur under the CRADA, both parties own the technology. Moreover, DoD can grant the company an exclusive license for DoD's share of the invention in exchange for reasonable compensation. In the case of inventions made solely by the DoD lab under the CRADA, the company automatically receives a non-exclusive, irrevocable, paid-up license. In addition, it can request an exclusive license, which will be granted for reasonable terms. Inventions made exclusively by the company under the CRADA belong to the company.

The following example illustrates how the CRADA mechanism can assist small technology companies. In 2001, TechLink helped Trout Headwaters, Inc., of Livingston, Montana, to create a new spin-out company called THI Riverworks. This spin-out was created to develop and commercialize software to model ways to stabilize stream banks using natural vegetation – as opposed to lining these banks with stone or concrete blocks ("riprap") to protect against erosion. Subsequently, in 2003, TechLink helped to broker two CRADAs between THI Riverworks and the Army Corps of Engineers. The first of these was a CRADA with the Corps' Waterways Experiment Station for modeling of stream bank biostabilization techniques; the second was with the Corps' Environmental Laboratory for integration of data and software into a decision support system for stream bank stabilization.

These joint R&D projects led to the development of a new, patented hand-held device for stream assessment and monitoring called RRAS, for "RiverWorks Rapid Assessment System" (*see* Figure 5). Launched as a prod-

In 2001, TechLink helped Trout Headwaters, Inc., of Livingston, Montana, to create a new spin-out company called THI Riverworks. This spin-out was created to develop and commercialize software to model ways to stabilize stream banks using natural vegetation – as opposed to lining these banks with stone or concrete blocks ("riprap") to protect against erosion.

FIGURE 5

Stream assessment device developed under CRADAs between a Montana company and the Army Corps of Engineers.

Source: THI Riverworks

An advanced wheelchair brake is being developed by a San Antonio, Texas, company and Army researchers under a cooperative R&D agreement brokered by TechLink

Together, TechLink's SBIR outreach programs have directly assisted companies in winning approximately 239 SBIR and related awards totaling around $123 million. This funding has been highly significant to technology-led economic development in the region. Outside of coastal California and the Puget Sound area, SBIR and STTR funding serves as the primary source of funding for technology companies. It is an essential substitute for scarce venture capital.

uct in 2005, RRAS is a complete hardware and software system with a Bluetooth®-enabled wireless GPS receiver and digital imaging capabilities. RRAS is being used for stream and wetland restoration, fisheries enhancement, watershed conservation, environmental assessments, mining reclamation, and ecological inventories. It helps resource managers to effectively address fundamental issues such as erosion, pollution, irrigation water use, water quality, flood prevention, and endangered species preservation.

To promote visibility of this new product within the Army Corps of Engineers, TechLink helped establish a third CRADA between THI Riverworks and the Corps' Environmental Lab for field evaluation of RRAS in December 2005. RRAS is now being sold internationally and is in wide use by the US government. In addition to helping develop this successful commercial project, the CRADAs enabled THI Riverworks to establish a number of lasting, high-value relationships with the Corps of Engineers, which have helped build business success in other key ways.

SBIR ASSISTANCE

In addition to brokering licensing and CRADA agreements, TechLink provides SBIR and STTR assistance to companies throughout the western United States. It currently has two distinctly different programs. With DoD funding, TechLink helps companies in 12 western states, including Montana, to compete effectively in DoD SBIR programs and to secure follow-on Phase III contracts. In addition, within Montana only, TechLink helps companies to develop successful proposals for the 10 other federal agencies having SBIR or STTR programs.

Assistance in both TechLink programs includes:

(1) Promoting the funding opportunity to appropriate technology companies and educating them about this opportunity;

(2) Searching SBIR/STTR solicitations as soon as they appear to find topics of relevance to specific client companies – in effect, serving as an "early warning system" so that the companies will have maximum time to respond;

(3) Counseling companies on how to conduct essential background research and prepare high-quality proposals;

(4) Providing commercialization planning assistance;

(5) Helping companies to link up with university researchers, where outside expertise is needed;

(6) Providing professional graphic art assistance;

(7) Providing small grants as incentives for companies to prepare proposal drafts well ahead of the deadline; and

(8) Providing proposal reviews by seasoned experts.

Together, TechLink's SBIR outreach programs have directly assisted companies in winning approximately 239 SBIR and related awards totaling around $123 million. This funding has been highly significant to technology-led economic development in the region. Outside of coastal California and the Puget Sound area, SBIR and STTR funding serves as the primary source of funding for technology companies. It is an essential substitute for scarce venture capital. As a case in point, Montana's 456 SBIR/STTR awards to date greatly outnumber the 10 total VC deals in the state's history. VC capital in rural states has other drawbacks. Several promising Montana companies that have received VC funds in the past were required to relocate out of the state, to be nearer to the VC managers. An added benefit of SBIR/STTR funding, compared to other sources, is that no ownership equity is lost and the funding does not have to be repaid.

ECONOMIC IMPACTS

TechLink's technology-transfer activities for DoD have helped to generate sizeable technology-led economic development. An economic impacts survey completed in summer 2009 determined that sales of products or services (including R&D services) resulting from TechLink license agreements, CRADAs, and SBIR/STTR contracts already exceed $240 million (see Table 1). This figure will grow rapidly. It invariably takes several years to convert a raw technology into a product, then several more years to successfully launch the product

and ramp up the sales figures. The majority of the products and services resulting from TechLink-facilitated agreements are still relatively new. In addition, there is a sizeable pipeline of new products and services, still under development, that will be launched in the next few years.

The 2009 survey also discovered that TechLink's technology-transfer activities have resulted in the creation or retention of at least 1,250 jobs in the United States (Table 1). These figures do not include any economic multipliers. When standard economic multipliers are taken into consideration – both *indirect effects*, such as inter-industry purchases, and *induced effects*, such as purchases by the labor force – the national economic output attributable to TechLink activities is approximately $729 million, with approximately 4,290 jobs created or retained.

The 2009 survey also discovered that TechLink's technology-transfer activities have resulted in the creation or retention of at least 1,250 jobs in the United States.

In sum, TechLink fosters technology-led economic development by helping companies to access the diverse technology, unique technical capabilities, and sizeable research-and-development funding in the DoD system. This involves identifying technology-transfer opportunities, linking together prospective partners, facilitating communications between the parties, helping solve problems that arise, and serving as a mediator throughout the entire technology-transfer process.

TABLE 1. Nationwide economic contribution attributable to TechLink (millions of 2009 dollars)

	Direct	Indirect	Induced	Total
Output	240	192	298	729
Employment (jobs)	1,258	1,041	1,991	4,290
Employee Compensation	92	54	82	228
Proprietary Income	16	9	12	38
Total Labor Income	108	63	94	266

Source: Bureau of Business and Economic Research, University of Montana
Note: Totals may not add due to rounding of figures

bringing back

THE CULTURE OF ENTREPRENEURSHIP

By Terry Whipple and Bonnie J. Peterson

Education, networking and access to resources, supplemented with a healthy dose of motivation – that's the successful recipe used by the Inventors and Entrepreneurs (I&E) Club of Juneau County, Wisconsin. Working from the premise that innovation and entrepreneurship will thrive if cultivated in a supportive environment, the Juneau County Economic Development Corporation (JCEDC) has embraced the club concept as a key component of its strategic plan. On one level, the club concept can be likened to a business incubator. However, rather than incubating emerging businesses, the club provides a nurturing environment for the exploration and development of ideas throughout an entire community or region.

I&E Club Inventor.

The I&E Club creates a supportive and exciting entrepreneurial environment in which enthusiasm is naturally contagious. Persons wishing to investigate the potential of their ideas can do so with a group of like-minded individuals. I&E Club members are empowered to learn the proper steps to exploring their ideas. Motivated and supported by their peers, the club members freely tap into a vast network of multi-talented and connected people who can quickly direct them to needed resources or potential partners. An educational component of the monthly meeting provides information on a wide range of specific topics and the evening's networking session is the highlight of the gathering.

The Inventors and Entrepreneurs (I&E) Club meetings began drawing too many participants so the Juneau County Economic Development Corporation began helping other surrounding counties start Clubs of their own to take some of the pressure off Juneau County.

THE REASONS BEHIND DEVELOPING THE I&E CLUB IN JUNEAU COUNTY

Juneau County is a rural county situated in the west-central portion of "America's Dairyland" with a population of approximately 27,000. It had once been home to a few major manufacturers that together employed up to 1,500 people in their heyday. However, when three of these big plants closed in 2000 and 2001, insult was added to an already injurious and festering problem of chronically high unemployment in the county. For JCEDC, the plant closings by these major employers pointed out that a dependence on a few major employers puts at risk the health of the entire local economy.

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THE INVENTORS AND ENTREPRENEURS CLUB OF JUNEAU COUNTY, WISCONSIN

Are your companies downsizing or moving out of your area? Are you worried about continued economic decline? Juneau County Economic Development Corporation faced these same issues years ago and began efforts to foster a culture of innovation and entrepreneurship at the grassroots level with a focus on nurturing business enterprise growth from within the region. This grassroots effort has become a feeder system to all state and local resources. It has proven to be an extremely efficient, cost effective program and has been replicated across the country. Juneau County Economic Development Corporation was recently recognized for its exceptional entrepreneurship program at the International Economic Development Council Annual Conference.

Cool stuff invented by cool inventors of Juneau County. Clayton McGonigle shows off his arcade game company.

The massive layoffs left the rural county to struggle economically in spite of the many good things Juneau County had going for it: Eight small communities with several smaller employers whose businesses were stable, considerable scenic attributes (picturesque lakes, streams, bluffs, and extensive bike trail systems), and a growing recreational base that supports a vibrant tourism sector. The county is located midway between the Twin Cities, MN, and Milwaukee/Chicago metro areas with Interstate Highways 90/94 bisecting its length.

Juneau County Economic Development Corporation (JCEDC) is a public-private partnership partially subsidized by the county with additional funding received through memberships and grants. The staff consists of one full-time director and three part-time employees who work together to support business retention and expansion, new businesses, workforce development, quality of life, and tourism.

JCEDC began the Inventors and Entrepreneurs Club in 2002 when the unemployment rate in the county was nearly 14 percent and the participation in the workforce was only 64 percent. The JCEDC executive director serves as the club's facilitator and I&E Club board member. JCEDC developed the I&E Club concept to bring back a culture of entrepreneurship that had been dismissed and swept under the rug, if not completely lost. JCEDC realized the Club concept had the potential to dramatically change the local economic landscape by diversifying the local economy in a way that may hedge against rapid changes such as plant closings, policy changes, economic downturns, or disruptive innovations that can quickly and drastically alter an industry's competitive landscape.

Supporting entrepreneurship became a key component of JCEDC's strategic plan because it keeps talent in the area. Many talented people were left without work when the plants closed.

The I&E Club provides a pathway for displaced workers to turn their talents and energies toward their own innovative ideas. Home grown businesses are also more economical to assist than chasing after large manufacturing firms, hoping they will locate or expand in your area. A small, rural county with a total population of about 26,000, such as Juneau County, Wisconsin, simply could not afford to compete with the incentives being offered elsewhere in the country. This economic development strategy also has a better chance for success. According to the Small Business Administration, only 1 percent of new jobs are created by enticing a business into a community. Compare that with 50 percent of new jobs created by the expansion of existing businesses and 49 percent of new jobs created by entrepreneurial activity.

The I&E Club provides a pathway for displaced workers to turn their talents and energies toward their own innovative ideas.

In a time of rapid change, as we are in today, old business models and mature products are dying away at a quicker pace. It is imperative that we have a base of motivated, educated, and networked entrepreneurs to grasp new opportunities and turn them into businesses to replace those that are being lost. If America loses this critical base of people who possess entrepreneurial spirit coupled with the insight to recognize opportunities, too few communities or regions will be able to seize these new and different opportunities when they arise. For rural communities, this is a very real concern.

The effort to encourage entrepreneurism has helped change the culture of the county. Now, seven years into the I&E Club effort, the Juneau County economy is growing from within and a fresh new attitude prevails around entrepreneurship. There is always an on-going struggle with unemployment as outsourcing, productivity gains,

Following the announcement that a major GM plant would be closing in southern Wisconsin, many people could only see this as tragic news. But, there is another side to that story. When a company implodes, the knowledge and talent doesn't disappear. Often, these talented individuals have creative ideas and dreams that have never been pursued. An explosion of new innovations and businesses can explode out of the ashes. Although the Juneau County I&E Club meets two and one half hours from the GM plant location, the Club drew a handful of engineers, giddy as school children, to the meeting. These engineers were passionate about their ideas and were looking to create new businesses. That's resiliency!

and automation have replaced the need for unskilled workers. However, the picture is no longer bleak.

Gains made in Juneau County's employment have caught the attention of regional labor economists. Bill Brockmiller, labor market analyst for the Wisconsin Department of Workforce Development, told a meeting of Juneau County community officials in 2008, "Juneau County has come a long way." In presenting current data and trends regarding workforce statistics, he showed that Juneau County cut its unemployment rate in half and was within one-half percent of the state unemployment rate.

Carol Kauscher, founder of D-Bug Lady, poses with her brother Sam.

Historically, the county had been stagnant in its rating among the bottom five counties out of 72 in the state in terms of highest unemployment rates. The county has since broken out of the lowest tier and has moved closer to mid-point within the state rankings due to diversification and new business growth. This surprised labor economists since the bottom five counties in unemployment never seem to escape the low rankings, but merely exchange places.

THE ENTREPRENEURIAL JOURNEY

The concept behind the I&E Club is geared to changing mindsets and encouraging creative thinking and a quest for opportunities, rather than creating jobs. While economic growth, creating job opportunities, and an increased local tax base are definitely part of the economic equation, these benefits are not the focus of the Juneau County Inventors & Entrepreneurs Club meetings. Instead, the core function of the Club is to engage people in creating a culture shift that will shape their community's future by changing how they view their role in it. In the safe environment of an I&E Club, members are motivated to explore their ideas and dreams, search for opportunities, and move ideas to fruition.

Coming up with an idea for a new product, service or business venture is often the fun and easy part. Figuring out what step to take next and determining the sequences of steps to follow is where the difficulty begins. Therefore, the first and main thing taught at the Club is determining the proper steps to exploring an idea.

Community support for those on an entrepreneurial journey is crucial. Entrepreneurs need grace time to experiment, change directions, and find their place in the sun. They need input, involvement, and encouragement from the community along the way. Yet, especially in small communities, there is often a mindset that makes experimenting in innovative and entrepreneurial ways a treacherous journey fraught with emotion and uncertainty. The stigma of failure holds people back from reaching out to others for help because to admit to failure, unfortunately, brands one as a loser. This means that people will struggle alone, and often after much agonizing they eventually will give up and swear to never try again. That is the real tragedy because they will never know what could have been possible with a little tweaking or a whole new idea.

The stigma and embarrassment associated with failure have stifled many good ideas, but the Club setting aims to change that notion. Part of the Club's effectiveness is based on its ability to assist members in recognizing an important fact up front – failure is an integral component of innovation and entrepreneurism. Disappointments are to be expected along the journey and these must be recognized as a valuable part of the learning process. So, as far as the Club members are concerned, the only real failure is in not trying.

I&E Club President Cary Winch and his partner break ground for their new manufacturing plant. Camp Inn Trailers was voted one of the top 100 new products in Readers Digest in 2005.

CLUB STRUCTURE: THE JUNEAU COUNTY EXPERIENCE

The Juneau County Club is set up separately from JCEDC as a 501c3 non-profit corporation. The Club has its own Board of Directors, but staff support is provided by JCEDC. Meetings are open to the public and occur once a month on the same day each month and same location. The Juneau County I&E Club found that it is important to hold the meetings on the same day each month, largely because many of those who attend learn about the Club through word of mouth instead of announcements or advertised press releases.

The Juneau County Club meets from 6:00 p.m. until the last person leaves, usually around 9:00 p.m. A local business offers its facility and provides coffee free for the monthly meetings. Efforts are made to keep the expenses low. The Club membership fees start at $35 per year for an individual and his/her immediate family. The membership donation is tax deductible and allows the participant to be eligible for grants to various workshops or conferences and also receive a Club T-shirt. The meetings are open to the public and the Club encourages anyone to attend the meetings and to stay networked, not just paid members.

Creating an I&E Club from the ground up presents some challenges. The makeup of the club is critical. A room full of only inventors will spend much of their time talking about their ideas. But lacking the needed business experience to do anything with these ideas, the meeting will not help the inventors move toward next steps. The best results come with a diverse group of people possessing varied talents. The Juneau County I&E Club has attracted a mix of inventors, entrepreneurs, business people, manufacturers, investors, entrepreneur assistance companies, as well as economic development resources to each meeting.

Regular attendance of 30 to 45 people is the ideal size for the club model. Meetings begin with announcements of new resources that are available, workshops in the area, announcements of grants, and helpful web links. The facilitator gives a brief overview of what the Club is about for those who are new. Often, about 25 percent of the attendees will be new participants, making the overview an important component of the meeting.

The next portion of the meeting is devoted to education. Speakers teach on all aspects of the invention and business processes. The interactive presentations are approximately 30 minutes in length. Topics range from prototype development, market research, intellectual property protection, marketing, website development, sales, and packaging, to hearing from serial entrepreneurs telling how they managed multiple undertakings. Individual corporate sales pitches are not permitted as educational programming.

I&E Club speakers tackle subjects on patents, marketing, sales, business structure, business plans, market research, and much more.

One of the components of Club meetings are educational presentations.

The last portion of the meeting is an introduction session followed by an opportunity to network with one another. Because every participant is important to the Club's success and the proliferation of the culture, each person is asked to tell their name and why they came. This is a good opportunity for members to hear what stage others are in exploring their idea and how they may help them. It also gives the facilitator a chance to match people up with what resources could help or to introduce them to an industry cluster informally formed by Club members. The introduction session and resource match-up help the participants feel comfortable in networking with others.

Attendees are also asked to tell if they have a talent or experience in certain entrepreneurial activities that they would use to help others in the Club, whether as a volunteer or a for-profit business. Club members will often offer free help in CAD drawings, artwork, electronic design, market research, and many other basic things. Member businesses offer assistance to inventors and entrepreneurs in intellectual property protection, marketing, prototype development, and manufacturing. Usually these businesses work on reduced fees for Club participants.

Club members are advised that any ideas that they plan to protect should be kept to themselves or use the confidentiality agreement provided by the Club. Usually, no specific information is actually needed in order to learn how the Club can be of assistance.

The best results come with a diverse group of people possessing varied talents. The Juneau County I&E Club has attracted a mix of inventors, entrepreneurs, business people, manufacturers, investors, entrepreneur assistance companies, as well as economic development resources to each meeting.

Juneau County I&E Club Treasurer Beth Staplin gives an update on membership. The Club charges voluntary membership dues and needs next to nothing to operate.

By the time introductions are completed, the energy and expectations are high.

Here's an example of how this happened to work during one of the Juneau County I&E Club meetings. An elderly lady who made and sold probiotic health food bars introduced herself and explained that she was looking for new ingredients for her food bar line. The man sitting next to her had a chestnut grove and was looking for a market for the nuts. But the connections didn't stop there! Another woman in the room was looking for products for her health food vending business and the gentleman next to her was a doctor who wanted one of the vending machines put into his clinic. While this situation may seem serendipitous, scenarios like this actually happen fairly often.

Jeff Jones showing off his Intire Industries product after winning a state award for innovative products.

I&E CLUB SUCCESS

Success of I&E Clubs should not be measured by number of jobs created, number of products invented, or number of business startups. While these are good economic indicators, they do not truly capture the purpose of the Club, which is to educate, nurture, and network inventors and entrepreneurs in a way that fosters a culture of idea exploration and opportunity hunting. Metrics are usually left to organizations like JCEDC and others that need to measure the success of their programs or consulting outcomes.

Juneau County's Club success can be attributed to three things: motivation, environment, and networking.

FACILITATOR AS MOTIVATOR – RA RA SIS BOOM BA

Every club needs a champion. The person who acts as Club facilitator is critical to fostering a vibrant and successful Club. Charged with conducting the meeting, the facilitator also encourages networking and acts as a match-maker to fill inventor/entrepreneur needs with the right resource or contact with another Club member. As a champion, motivator, and cheerleader, the facilitator makes meetings fun and entertaining, as well as informative. As the facilitator launches the attendees into their introduction session, a watchful eye will help him/her recommend that certain people get together in the networking session to follow later in the meeting.

Starting a business venture is difficult and inevitably life tends to get in the way. This is true for even established businesses and one reason so many Mom and Pop businesses stall over time. For some people, motivation is the real draw in coming to the Club meetings. Their creativity is sparked and they feel good about their business pursuits. These people may already be operating businesses, yet they still find value in the connections they make and maintain with other Club members.

An example of this is found with a chemist in his mid-60's who came to the Juneau County Club with some incredible innovations. Some of these ideas were completed a decade ago. When asked why he hadn't done anything with these innovations in the past, he shared how he had studied chemistry while he was a university student but had to leave these pursuits after obtaining his Bachelor's degree because he needed to support his family. However, he continued to love chemistry and after work he would dabble with new processes to create custom aldehydes in order to find a cure for cancer. Since he was doing this in his basement, he had to make them without creating hazardous materials, as was common in the known processes. For 30 years, he worked on great projects, finding many new uses for these aldehydes and stored the results in a file. Life had gotten in the way, but now with help provided by the Club he was motivated to do something with his valuable work. Perhaps some life changing innovations are just sitting dormant in someone's file right now, waiting to be introduced to the world. I&E Clubs are a way to unlock the file drawers to these potential treasures!

ENVIRONMENT – HELP THEM FEEL SAFE

Another key reason the Club is successful is the non-threatening environment that is created. The Club introduces people to the business mindset in an informal, non-academic manner. As a forum of equal peers, the Club holds no hierarchy based on level of educational attainment or social status. We learn best from our peers – those who have been there and done that. It is much easier to learn when, for instance, someone familiar with gaining government contracts puts his arm around you and says, "It is a little scary but I will stop by and walk you through it. And by the way, here is my phone number should you have a question."

It is not the place of Club members to squelch an idea because they do not like it or think it is bad. Through the support of the Club, however, members are taught the steps to take to properly explore an idea. With the support of the Club, the people determine for themselves the worthiness of their ideas. Likewise, it is the support provided by the Club that also gives them per-

Ed Marron and Dan Forss discuss innovations at the Annual I&E Club Rendezvous which brings together seven regional clubs.

mission to kill their idea if it's misguided, alter the idea, set the idea aside if the timing is wrong, or move it forward if it looks promising.

Some inventors can become easy prey for unscrupulous service providers of the "we'll help you get rich quick" variety. Being part of the Club's safe environment eases this concern, especially when Club members seek for-profit assistance. They are much less paranoid when they are with others they can trust or can check with regarding scam companies. In fact, one of the Juneau County I&E Club members even made a scam buster search engine (www.bobharter.com/whototrust.php) for other inventors to check out companies before entering into a business transaction. Most for-profit businesses, recognizing the Club value for potential clients and desiring to foster a good name, will go the extra mile to be fair in their dealings with this group.

NETWORKING: LET THE MAGIC BEGIN!

One of the most intriguing, exciting, and successful aspects of the Club is the networking. You never know when you are going to run into that person or resource that is going to help you succeed. Networking at the I&E Club is like the lottery. You can't win if you don't play. You have to be out there playing or you can be assured that nothing will happen.

The magic of the evening really happens when these people are turned loose to find the few people in the crowd who they really want to meet. In each Club meeting there will always be someone present from whom you can learn. It is here where inventors meet business and sales talent, entrepreneurs meet investors, and stagnant businesses meet new ideas and creative advice. The I&E Club attracts participants of many ages, and as a result, the club provides rich layers of experiences, insights, and mentorship. When structuring an I&E Club meeting, it is best to leave plenty of time for networking.

Very few people possess all the talents that they will need to make a success of their idea. A high percentage of successful businesses are organized as partnerships because this balances skill sets. The Club is where members recognize the talents they possess and those they lack, and connect with people who have the talent and experience that can be leveraged to move ideas forward. To use an analogy of a popular web-based dating site, the Club acts as the "e-Harmony®" for inventors and entrepreneurs. Match-ups are made based on many different variables of talents and needs.

A good example of this is Brian, a member of the Juneau County I&E Club. Brian finished high school but did not know what he wanted to do, so he started work at the local implement dealer where he worked on repairing pumps. Brian found that he enjoyed it and developed a passion to learn how the pumps could be improved. He began developing his own concept of how to make them more efficient, using what he called a more true centrifugal force. He gleaned information at the libraries and off the Internet and worked his concept through the available formulas. Before putting a lot of expense into a prototype, he wanted to check with someone to see if they were correct.

Brian is an inventor type and was not skilled in selling himself to universities or corporate engineers so he was unable to get the confirmation he needed to move forward. After joining the I&E Club, we were able to get him in front of some engineers at one of the universities that specialized in fluid dynamics. They found that even though they did not quite understand Brian's "true centrifugal force theory", the design itself was 10 percent to 15 percent more efficient than any other pumps its size. Brian is now working to finish a prototype. Where would this idea be now if it wasn't for the Club?

One of the product fairs held by the Juneau County I&E Club.

Bob, a six-year member of the I&E Club, admitted he was not good at networking. The I&E Club introduced him to invention brokers, marketing experts, insurance professionals, business consultants, and others. And, through Club mailings, Bob became aware of an inventors contest. He submitted his invention, won the contest, and received a licensing agreement! Where would his invention be today without the Club?

Or, take for example the "mitten lady." The "mitten lady" shared with the Club how her mitten-making business was going nowhere. She shared how she invented her own special weave for knitting the mittens and only used Wisconsin wool from farms that she knew a lot about. She sold her mittens to local people for $12.50 to keep warm. She had become what our Club calls a "starving artist business." The Club was able to show her that her market was not the local people and her product was not to just keep people warm but the true value was in the story of the mitten lady and the special weave and about the Wisconsin wool. Her new market was global. After changing her marketing and building an Internet presence, she now sells her mittens for $85.50 per pair and is making more of them than ever.

CHANGE THE FRAMEWORK, CHANGE THE CULTURE

The supportive culture within the Club also greatly enhances the desire for entrepreneurs to give back to their communities.

An anecdotal survey of several successful entrepreneurs gives insight on how important support from the community can be to someone trying to build a business from their idea. Many revealed that they either give back very little to their community or ignore it all together. This stems from feeling that they had to bite, scratch, fight, and kick to make it, while expecting that many in the community were actually hoping their venture would fail. Struggling in a non-supportive environment seems to be a prevalent feeling among inventors living in areas that are already economically distressed. Perhaps that is why the club approach provides such a refreshing, safe environment.

As the I&E Club concept is adopted, we expect to see a change in this pattern. For example, take the experience of Tom, a member of the Juneau County I&E Club, who worked for a machine shop that had him working on gaining government contracts. He grew knowledgeable in this area and decided he wanted to start a business doing government contracts and subcontracting out much of the work. He had a wife and seven kids so this would be quite a challenge and would also be taking a risk with the family's financial future.

As part of the I&E Club, Tom received encouragement from fellow club members and a helping hand in making contacts and preparing orders. Then, he stopped attending the club meetings. Almost a year went by and one hot July evening when the Club meeting was about to start, into the parking lot barreled a $70,000 Hummer. Out jumped Tom, heading straight to the front of the Club to proclaim that he had made it! He also declared that he would like to give back to the Club members by mentoring them in how to secure government contracts. He announced that he had opened a new machine shop and would help make prototypes for those that needed that type of assistance. And that is just what he has done – providing support, insight, and mentoring to others in the Club. Scenarios like this happen quite often as our entrepreneurs recognize that they are not alone on their journey.

ECONOMIC ECOSYSTEM

The Club concept can embed "a heart and soul" into brick and mortar business incubators to give them more of a community feel. Everyone becomes involved in helping each other succeed and are also there for support during times of failure. Since entrepreneurism is naturally contagious, the Club acts as a feeder system for the entire incubator. Members of the I&E Club, in all of their various stages, are continually creating links with the broader community. From the Club meeting, a wide variety of interactions and activities will grow. As a result, every Club member becomes a "deputy" for local and regional economic development.

Other positive activities that are emanating from the Club are industry cluster groups. Club members are getting together throughout the month to discuss and work on their projects within informal clusters such as alternative energy, writing and publishing, games, foods, government contracting, and so on. For example, the Juneau County I&E Club has a group working on developing a cooperative model for a community fuel alcohol still. The Hickory Hills Arts group is also an offshoot of the Club, as is another cluster of participants exploring the development of a shared-use commercial kitchen.

Representative Sheryl Albers congratulates I&E Club member Todd Bunker on his new start up business, Bunker Water Jet Cutting.

WISCONSIN ENTREPRENEURS FIND SUPPORT IN WEN

I&E Clubs have become a great feeder system into many of the fine federal, state, and local entrepreneur support programs or organizations.

I&E Clubs in Wisconsin are also tied into a larger state-wide effort to promote entrepreneurship. The Wisconsin Entrepreneurs' Network (WEN) is a network of diverse service providers supporting entrepreneurial businesses by sharing information, resources, and access to expertise. WEN partners include the University of Wisconsin System, the Wisconsin Small Business Development Center Network, the Wisconsin Technical College System, Agricultural Innovation Center, regional economic development groups, and others interested in fostering entrepreneurship in Wisconsin. WEN began in June 2005 as a joint venture between the Wisconsin Department of Commerce and the UW-Extension's Entrepreneurship and Economic Development Division. A majority of the services provided by WEN partners are free or low cost.

CONCLUSION

Successful I&E Clubs include a mixture of inventors, entrepreneurs, businesses, investors, and economic development professionals. An engaging facilitator, well connected to other resources, plays the matchmaking

role for networking to begin. The I&E Club provides access to knowledge and resources, in a safe and encouraging environment that minimizes risk, so that Club members can grow into successful business owners.

It is important to remember that the I&E Club concept is about changing culture and mindset. Once a person learns the proper steps in exploring an idea and how to research it, test it, and launch it, they have something that can benefit them each time they recognize an entrepreneurial opportunity.

The Club's primary focus is not directed on creating jobs and new businesses. These will definitely follow, but they are not the emphasis of the Club activities. Instead, the Club provides education, connections, and confidence necessary to help people explore and develop their ideas in a sequence that leads them to success and profit. Club members have successfully found partners, investors, sales people, manufacturers, and many more resources during our meetings. When difficulties are encountered, fellow participants act as a safety net, providing understanding, suggestions, and encouragement.

A vibrant Club is alive with peer learning, and as such, the participation of each member is valued. Someone trying to bring in an additional $3,000 per year with an idea is just as important to the Club as the person working to launch an idea on the level of Google™ or iPod®.

Through the development and nurturing of an I&E Club, a local or regional economy can be strengthened in several ways, including:

- Creating a diversified economic base,
- Providing ready access to imaginative thinkers and solution seekers,
- Encouraging thoughtful preparedness of business plans, and
- Assisting with appropriate responses during times of rapid change.

The I&E Club has proven to be an extremely efficient and cost effective program for Juneau County, Wisconsin. However, it is a model that could easily be replicated throughout the world. The I&E Club model is appropriate for use in suburban and urban communities, as well as rural settings.

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webster goes green

By Betsy Giusto, Ph.D.

While the phrase "going green" appears with increasing frequency in publications, seminar titles, and even restaurant menus, the impetus to reduce the "human footprint" is nothing short of revolutionary. Many factors have contributed to a philosophical shift that champions preserving natural resources, mitigating pollution, recycling, generating alternative energy sources, and manufacturing and consuming more efficiently and intelligently. From global recession to global warming and myriad issues in between, like rising energy costs, escalating pollution levels, alarming obesity rates, problematic landfills, and the destruction of some species, "going green" carries important ramifications – even for a small, American city that encompasses just 6.7 square miles.

As entities all over the globe seek methods to build sustainable communities – those that are both environmentally and business friendly – the City of Webster, Texas, literally struck "gold" with its novel, yet simplistic, Green Commercial Building Tax Abatement Program, which received the International Economic Development Council's 2009 Excellence in Economic Development Award for Sustainable and Green Development. In partnership with Harris County, Webster adopted guidelines and criteria designed to foster new LEED-certified (Leadership in Energy and Environmental Design) commercial development that enables eligible projects to reap economic benefits of both Harris County's and Webster's programs.

Webster goes green at 251 and 253 Medical Center Boulevard.

Webster's first program recipient constructed a Gold LEED-Certified $11M facility that serves as an international model for sustainability and design innovation, attracted a growing biomedical company with a workforce of 150, and contributed to the conservation of energy and natural resources – Webster's green program is "gold" and easily replicable or expandable.

Webster's green program encourages, recognizes, and rewards the development of new commercial buildings that aspire to LEED standards, which cover six major areas that include sustainability, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. In the United States, since buildings constitute the largest emitter of carbon dioxide, more than transportation or energy, the movement to shrink the carbon

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GREEN COMMERCIAL BUILDING TAX ABATEMENT PROGRAM LAUNCHES IN WEBSTER, TEXAS

Cities both large and small can readily implement an initiative that encourages and rewards green development without "breaking the bank" or impacting the general fund. A green building program can project the city's cutting-edge, environmentally-savvy, developer-friendly mentality to business prospects and the media. As entities all over the globe seek methods to build sustainable communities – those that are both environmentally and economically sound – the City of Webster, Texas, literally struck "gold" with its novel, yet simplistic, Green Commercial Building Tax Abatement Program, which received the International Economic Development Council's 2009 Excellence in Economic Development Award for Sustainable and Green Development.

footprint of major cities and metropolitan areas through green building practices is significant. (While statistics for emissions from buildings in America vary from 37% (Garry Peterson, Building Transformation: CO2 Emissions and Change at Resilience Science, November 14, 2007) to 48% (John Laumer, Buildings Account for Half of All CO2 Emissions, TreeHugger, May 5, 2006), clearly, this sector is the largest source of greenhouse gas emissions and energy consumption, world-wide.)

FIRST PROGRAM RECIPIENT

The City of Webster, located midway between downtown Houston and Galveston, is considered the central business district of the Clear Lake area with its medical center, aerospace sector, and retail and entertainment venues. While the municipality is home to 9,000 residents, it is the haven for more than 2,500 businesses.

Webster exhibited its progressive, green side in September 2008, when the municipality adopted the Green Commercial Building Tax Abatement Program and authorized an agreement for the first program recipient – Jacob White Construction's 253 Medical Center Boulevard facility. Jeff Mickler, president and CEO, Jacob White Construction, had already completed an award-winning Gold LEED-certified 48,000-square-foot medical office building in the city at 251 Medical Center Boulevard and had requested Webster's support in the form of a green program before embarking on the twin facility – 253 Medical Center Boulevard. It was this request from the developer that served as the catalyst for creating the city's program.

As 251 Medical Center Boulevard serves as an international model for sustainability and innovation in that this facility won Houston Business Journal's prestigious 2008 Green Project Landmark of the Year Award and Texas Rain Catcher's Award for the building's rainwater and harvesting systems (and features the largest "living" roof in the State of Texas), Webster City Council understood and appreciated the ramifications of sustainable, green development. Further, it was acknowledged that 253 Medical Center Boulevard would be home to a new company, IDEV Technologies – resulting in 150 high-skilled jobs and more than $11M in new investment ($8M for the 48,000-square-foot Gold-LEED facility and $3M in equipment).

Aerial view of 251 Medical Center Boulevard, featuring the largest living roof in the State of Texas.

251 & 253 MEDICAL CENTER BLVD.

251 Medical Center Boulevard

- Green Landmark of the Year for 2008 – *Houston Business Journal*
- Texas Rain Catcher Award in 2007 – Texas Water Development Board

253 Medical Center Boulevard – Home to IDEV Technologies

- Webster's inaugural recipient for the Green Commercial Building Tax Abatement Program

Each facility encompasses 48,000 square feet and features

- The largest living roof in Texas – nine inches of soil with plants that trap rainwater and reduce heat load
- Underground storage cistern for recycling rainwater
- High efficiency skin with heat-reflective glazing system
- Up to 50% lower operating and utility costs

HOW THE PROGRAM WORKS

Webster's Green Program is designed to foster and reward new green development effortlessly and speedily through a ten-year ad valorem tax abatement incentive. The entire process from application to implementation takes approximately one month and is handled by the city's Economic Development Department and City Council, which, ultimately, authorizes the tax abatement.

An investor/developer who seeks to build a new LEED-certified commercial facility completes a two-page application that is contained within the city's Guidelines and Criteria for Granting Green Commercial Building Tax Abatement in a Reinvestment Zone. The applicant must be registered with the U.S. Green Building Council and demonstrate that the project will attain one of the four levels of LEED certification with accompanying minimum investment. Given the rationale that building to LEED standards costs more than traditional construction, as well as the principle that escalating LEED levels result in higher project costs, a formula is devised to calculate minimum investment requirements based on the extra cost of attaining Basic, Silver, Gold, or Platinum Certification.

For a proposed, new facility to qualify for the tax abatement, the minimum value of increase attributable to achieving LEED certification must be at least $100,000, which translates into a minimum total investment of $10M for Basic Certification; $4M for Silver

Certification; $2M for Gold Certification; and $1M for Platinum Certification. These calculations for the LEED-related increment are based on LEED certification levels and accompanying formulas:

Basic Certification has a LEED-related value increment of 1%.

Silver Certification has a LEED-related value increment of 2.5%.

Gold Certification has a LEED-related value increment of 5%.

Platinum Certification has a LEED-related value increment of 10%.

(Example: An applicant proposes to build a LEED-Certified Gold office building that will cost $8 M. The imputed or assigned LEED-related value for this construction is 5% or $400,000. The LEED-related value increments were determined to be the added cost to attain specified levels of LEED certification. In this example, since the LEED-related value increment exceeds the minimum of $100,000, as delineated in the city's Guidelines and Criteria, the project can be submitted for City Council's deliberation.)

Once authorized by City Council through an ordinance establishing a reinvestment zone for the project, the ten-year green building tax abatement becomes effective in the year that the application is approved. The actual tax reduction, however, begins once the construction of the facility is completed, LEED certification is obtained, and the property appears on the tax roll. Under Webster's program, the approved property receives an exemption from ad valorem taxes on $5,000 of the taxable value of the eligible property. (This amount – $5,000 – is set by the city in the program guidelines.) All taxable value in excess of $5,000 is taxed at the city's current tax rate. Property eligible for abatement includes the value of buildings, structures, fixed machinery and equipment, site improvements, and office space and related fixed improvements necessary to the operation and administration of the facility.

Not only is Webster's Green Commercial Building Tax Abatement Program simplistic for both the applicant and the city but also the process to approve and implement a project is equally straightforward and rapid. The entire program, of which the two-page application is a component, consists of six pages. The first two pages contain the resolution describing the rationale for the program; the subsequent two pages delineate the rules for the program, and the final two pages contain the application.

Developer Jeff Mickler, Jacob White Construction, and Dr. Betsy Giusto, Economic Development Director, City of Webster, on the living roof of 251 Medical Center Boulevard.

Not only is Webster's Green Commercial Building Tax Abatement Program simplistic for both the applicant and the city but also the process to approve and implement a project is equally straight forward and rapid.

CREATION AND IMPLEMENTATION OF THE PROGRAM

In response to a developer's request to formulate a green building incentive program, Webster's Green Commercial Building Tax Abatement Program was created by the city's Economic Development Department team who worked with a representative from Harris County. While Webster's program was unique, it had to meet the County's criteria for qualified projects, as well.

From start to finish, Webster's program was implemented in two months. First, City Council adopted a resolution establishing guidelines governing green commercial building tax abatement agreements by the city, based on the principles that new green buildings are desired; the LEED rating system is worthy; green buildings cost more to construct than non-green edifices; and a ten-year tax abatement stimulates new, green commer-

WEBSTER GOES GREEN

By the Numbers –

- 2 months: Time period from inception to implementation of program
- 6 pages: Program guidelines, including application
- 10 years: Duration of tax abatement incentive
- 1,000,000: Minimum dollar investment, varies by LEED-Certification level sought

By the Benefit –

- Fosters new green development
- Expands easily to other projects
- Cultivates positive media coverage
- Champions business development, corporate responsibility, and sustainability

Workers begin to spread the nine inches of soil used on the roof of 251 Medical Center Boulevard.

cial development. Second, City Council adopted an ordinance (requiring two readings) designating a reinvestment zone for the first applicant's project and, thereby, granting a tax abatement for ten years.

COST TO FUND PROGRAM AND PARTNERSHIP POWER

Ostensibly, Webster's Green Commercial Tax Abatement Program is minimal. Qualified green commercial projects receive a nominal tax abatement, based on the fact that Webster's ad valorem tax rate is so low--$0.20 per $100 valuation. Since the municipality offers a built-in incentive to investors with this low tax rate, the project's taxable value that is exempted for abatement is capped at $5,000. What is priceless about Webster's program, however, is the media acclaim and recognition that the city, developer, and tenants derive from their commitment and participation.

Webster's first project costs the city about $10.00 annually for ten years. What Webster's program accomplishes, however, is to enable approved projects to reap the greater benefits from Harris County's program, whose tax rate is over three times the rate of Webster's. While Webster's program is nominal, it serves as a prerequisite for Harris County's more significant tax abatement program.

Of import is the fact that Webster will encounter no financial burden in authorizing agreements with virtually every, new eligible project. Further, through this program, Webster avails itself of the opportunity to partner with Harris County – the most densely populated county in Texas – in a mutually beneficial manner. Webster's program recipients will, more than likely, become Harris County's program winners, and both entities enjoy the rewards of stimulating new, green commercial development.

UNLIMITED CAPACITY TO EXPAND AND TAILOR PROGRAM

Webster's program can easily be amended and expanded by entities to suit their objectives. For example, the financial incentive could be much greater if the exemption from ad valorem taxes were not capped or if the exemption were capped at a much higher value than $5,000. In like manner, Webster's program and Harris County's program provide a ten-year tax abatement; however, the length and scope of the program could be expanded or contracted.

Just as the financial incentive can be readily tailored, the entire scope of eligible projects, too, could be augmented to include renovated or redeveloped facilities, non-commercial buildings, and more comprehensive "green zones" that prescribe entire corridors, retail and entertainment centers, parks, landscaping, streetscaping, and other environmental or architectural components. The opportunity for entities to design a unique program that is customized to suit their objectives and budgetary requirements is virtually unbounded, highly appealing, and extremely beneficial.

ECONOMIC IMPACT OF GREEN COMMERCIAL BUILDING TAX ABATEMENT PROGRAM

Webster's program, adopted in September 2008, has produced direct and indirect results. First and foremost, the program has resulted in business recruitment. IDEV Technologies is an innovator and developer of next generation medical devices for use in interventional radiology, gastroenterology, vascular surgery, and cardiology, representing a $5 billion market opportunity. IDEV wanted to grow its company in a high-performance green facility inside a city that understood the significant health and environmental benefits of fostering green, sustainable development. Next, this program has amplified the city's ad valorem tax base, as the initial capital investment by the developer and company is $11 million. Additionally, the green program has brought 150 high-skilled, high-salaried jobs to the city. As this new workforce dines, shops, conducts business, and utilizes the medical center in Webster, sales tax and business climate are positively impacted. Since IDEV Technologies is a world-wide company, international representatives from medical sectors visit IDEV's headquarters, stay in Webster's hotels, and generate revenue for the city.

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Finally, Webster's program will serve as a catalyst in fostering more green commercial development, as a campus-style office complex and a medical office facility are in the pipeline. Although the 253 Medical Center Boulevard facility is the first program recipient, Webster expects many more projects.

"Webster Goes Green" serves as an invaluable economic development tool, as well as an excellent public relations initiative. From coverage in local and regional newspapers and trade publications to business recruitment, a program – such as this – disseminates a very positive, progressive message about the city.

SOURCE OF EXCELLENT MEDIA AND PUBLIC RELATIONS EXPOSURE

"Webster Goes Green" serves as an invaluable economic development tool, as well as an excellent public relations initiative. From coverage in local and regional newspapers and trade publications to business recruitment, a program – such as this – disseminates a very positive, progressive message about the city. As the green movement has emerged as one of society's most supported endeavors, it follows that a program that encourages and rewards the development of new, commercial green facilities will be embraced.

When a program can champion both green development and business development, there is no question about its success. In Webster's case, this is an initiative that will be cultivated and expanded, as the most desirable projects from the viewpoint of many – the developers, the businesses, the workforce, and the clientele – are green.

the business incubator

ON WHEELS

By Charles F. D'Agostino, MBA

How does a rubber chicken lunch turn into one of the most innovative entrepreneurship programs in recent years? The author was having lunch at a Louisiana State University function with LSU alumnus, John Q. Barnidge. Barnidge was the CFO of Healthtronics, a manufacturer of mobile medical units and first responder command vehicles based in Austin, Texas, and Harvey, Illinois. The discussion touched on the impressive vehicle that Healthtronics designed for NASA, called the *Benefits of Space* touring vehicle. The vehicle was an 18-wheeler converted into a classroom with a theater capable of seating 20 people, used for viewing videos of space exploration, and an exhibit area featuring showcases containing space memorabilia and space spinoffs. The Louisiana Business & Technology Center (LBTC) requested the unit from NASA and brought it to Baton Rouge to promote the Center's office at the NASA Stennis Space Center.

Barnidge arranged for Healthtronics to donate a similar unit to LSU so that the Louisiana Business & Technology Center could establish the *"Incubator on Wheels"* program. This lunch turned into the beginning of a program that has brought business support, technical assistance, and entrepreneurship to over 120 communities in rural Louisiana and communities impacted by Hurricanes Katrina, Rita, Gustav, and Ike. The unit was received fully refurbished and ready to hit the road in late October of 2005. The plans to present entrepreneurial training to underserved rural Louisiana was temporarily put on hold by two infamous ladies, Katrina and Rita, and the powerful punch that they gave coastal Louisiana and Mississippi.

The Mobile Classroom following Hurricanes Gustav and Ike, deployed in Houma, LA.

The Mobile Classroom, *"Incubator on Wheels"*, was quickly deployed to coastal Louisiana, visiting areas from Chalmette and New Orleans to Cameron and Lake Charles. The unit became very quickly the business disaster recovery center on wheels. The LBTC partnered with Louisiana Economic Development, the US Department of Agriculture – Rural Development, the Louisiana Municipal Association, the LSU Ag Center, the Louisiana Public Facilities Authority, IEDC volunteers, and a full assortment of business counselors to assist impacted businesses in the hurricane devastated areas. The LBTC provided individuals in these locations with information on disaster loans

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BRINGING ENTREPRENEURIAL SERVICES TO THE RURAL COMMUNITIES IN LOUISIANA

The Louisiana Business & Technology Center (LBTC) at Louisiana State University has established an Incubator on Wheels program that has brought business support, technical assistance, and entrepreneurship to over 120 communities in rural Louisiana and communities impacted by Hurricanes Katrina, Rita, Gustav, and Ike. The program allows the LBTC to coordinate, develop, promote, and foster entrepreneurial strategies and outreach activities to individuals who normally do not have access to such programs. By traveling to the site of potential clients, the LBTC can extend its services to individuals in the area as well as encourage them to seek further assistance.

and other relevant programs, offered technical assistance and business counseling, and allowed businesses to utilize laptop computers and satellite communications contained in the Mobile Classroom.

LOUISIANA BUSINESS & TECHNOLOGY CENTER OVERVIEW

The Louisiana Business and Technology Center, a totally self-funded and an integral part of the E. J. Ourso College of Business's Stephenson Entrepreneurship Institute at Louisiana State University, endeavors to enhance economic development in Louisiana through the support of existing small businesses and the development of new businesses through its business incubation program. The Center serves to stimulate small business formation, growth, and survival which will ultimately lead to job creation and the expansion of economic development within the state of Louisiana. The LBTC has partnered with establishments such as the Louisiana Business Incubation Association, the Louisiana Small Business Development Center Network, Manufacturing Extension Partnership of Louisiana, and Procurement Technical Assistance Center Programs in order to better address the needs of its small business clients located throughout the state.

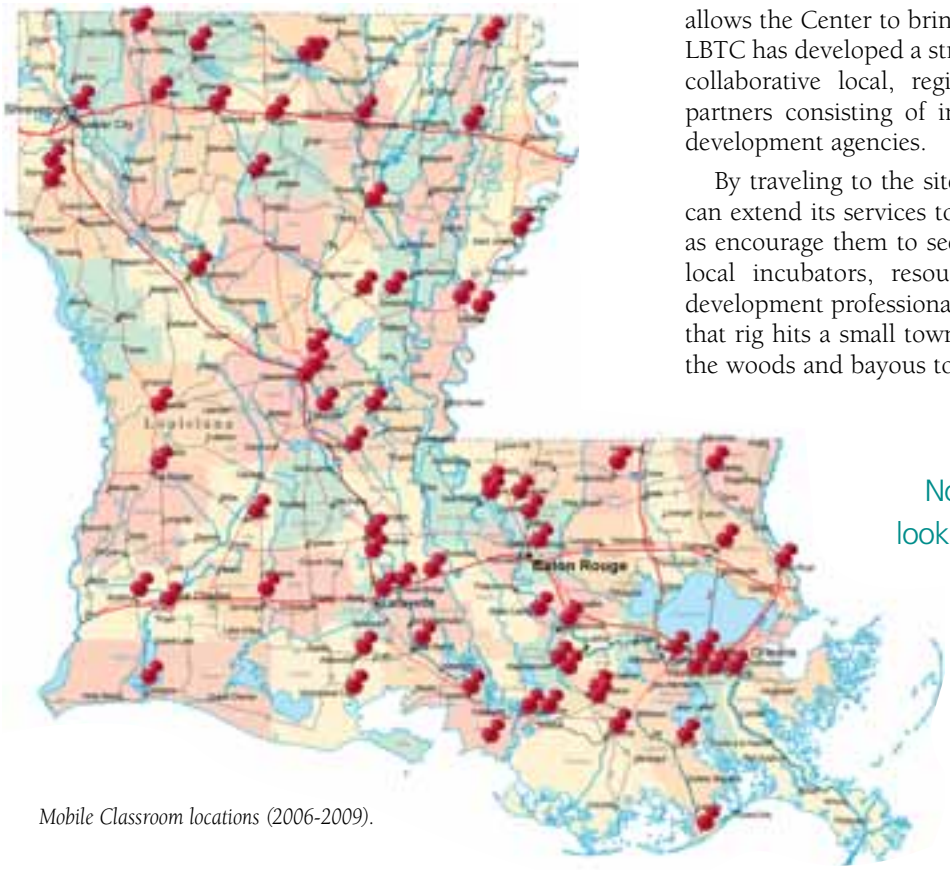
MOBILE CLASSROOM OVERVIEW

The Louisiana Business & Technology Center *"Incubator on Wheels"* program is designed to bring the first-rate business counseling and technical assistance that the Center provides to rural, underserved areas of Louisiana. Since 31 percent of Louisiana's population, or around 1.4 million people, live in rural Louisiana, the Mobile Classroom strives to provide innovative entrepreneurial education and technical assistance training programs to individuals located in these areas where economic stimulation is needed. Not only does the Mobile Classroom look to serve aspiring business owners, but it also assists hurricane-impacted businesses by providing the immediate and critical resources necessary for successful recovery operations.

Teaching in the Mobile Classroom.

The mobility of the *"Incubator on Wheels"* program allows the Louisiana Business & Technology Center to coordinate, develop, promote, and foster entrepreneurial strategies and outreach activities to individuals who normally do not have access to such programs. Rather than relocate clients to the incubator, the Mobile Classroom allows the Center to bring its services to the clients. The LBTC has developed a strong and competent coalition of collaborative local, regional, statewide, and national partners consisting of incubators and other economic development agencies.

By traveling to the site of potential clients, the LBTC can extend its services to individuals in the area as well as encourage them to seek further assistance from their local incubators, resource providers, and economic development professionals. As one mayor stated, "When that rig hits a small town like ours, people come out of the woods and bayous to see what is going on."



Mobile Classroom locations (2006-2009).

Not only does the Mobile Classroom look to serve aspiring business owners, but it also assists hurricane-impacted businesses by providing the immediate and critical resources necessary for successful recovery operations.

The program makes a statement. It tells rural Louisiana that they are not forgotten just because they are not on the interstate highway. The small business owners in these communities are provided the necessary management and technical assistance to allow them to successfully grow their businesses. By working with businesses in the small communities, the Louisiana Business & Technology Center is able to show them how to market their products on the Internet, how to develop websites, how to apply for and receive loans, how to market their products, customer service capabilities, and other key tools necessary for success.

The ability for quick response by the LBTC and its *"Incubator on Wheels"* is critical. The ability to move into the hurricane impacted areas, in many cases before power and Internet was restored, was critical to business recovery. Research data verifies the fact that, the longer the business is down, the less chance it has for recovery. When the chicken processing plant was shut down in Farmerville, Louisiana, Louisiana Economic Development called for the *"Incubator on Wheels"* to come to the north Louisiana town to provide emergency business assistance to the small business owners impacted by the plant closure. The Center, its staff, and strategic partners from the LSU Ag Center and the Louisiana Workforce Commission designed programs and classes to help the former employees and subcontractors of the Pilgrim's Pride plant react to the devastation of a major employer shutting down its operations. The LBTC taught classes on resume writing, re-entering the workforce, marketing businesses to other industries, and personal business counseling.

Participants in the sessions provided the following quotes, during a recent survey of attendees.

- "The sessions in Oberlin were scheduled as a result of a desire to see an improvement in our downtown business area. Possible business owners were encouraged to attend and as a result, there have been two new businesses opened up on our small main street;" and
- "The sale of Farmerville poultry plant allowed me to go back to farming, but through your classroom experience I did enroll in trade school to update my skills. Thank you for the time you all put into the Mobile Classroom."

These types of responses make the program worthwhile. Our business counselors, disaster recovery specialists, and strategic partners are rewarded by the sincere "thank you" given to us by those attending the sessions.

MOBILE CLASSROOM SERVICES

Each stop of the Mobile Classroom provides potential clients with innovative entrepreneurial education, a technical assistance training program, and training materials necessary for the clients' businesses to grow and sustain long-term success. The LBTC looks to develop a strong and competent coalition of collaborative partners in all areas visited in order to develop a system and continue to deliver content and services upon completion of the project. Through the mobile incubator, the Center hopes to facilitate the development and/or expansion of the entrepreneur infrastructure to areas lacking this foundation, as well as foster a forward-thinking entrepreneurship culture that develops sustainable networks and creates policies consistent with successful entrepreneurship development activities.

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Teaching computer skills in the Mobile Classroom.

Knowledgeable and experienced members of the Center staff accompany the Mobile Classroom on its tour of Louisiana, bringing their expertise where they are most needed and encouraging entrepreneurship to an audience that is often overlooked. The classroom typically stays in an area for three to five days during which it hosts a wide array of workshops and seminars. The sessions are selected by the community sponsors in each location and tailored to the specific needs of each community visited. Most importantly, the classes are **open to the public and free of charge.**

The operational cost of the program includes a full-time mobile classroom coordinator, the movement of the unit from location to location, and the overall general management of the project. This is estimated to be approximately $150,000 annually, but the return on investment in good will for Louisiana State University

and the state's economic development mission is tenfold. Recently, the US Department of Agriculture hosted a meeting of the USDA state directors from Texas, Tennessee, Mississippi, Arkansas, and Louisiana in Marksville, Louisiana. The meeting included a tour and presentation on the *"Incubator on Wheels."* Each of the state directors from the neighboring states requested information on how they could replicate the program.

The *"Incubator on Wheels"* program has partnered with the U.S. Department of Agriculture – Rural Development, the Louisiana Municipal Association, Louisiana Economic Development, and the LSU Ag Center and Cooperative Extension to develop a series of programs and training sessions teaching entrepreneurs how to start, finance, and market their business ideas. Entities such as IEDC, Manufacturing Extension Program of Louisiana (MEPoL), the Procurement Technical Assistance Center, the US Small Business Administration, the Louisiana Technology Transfer Office, Capital One Bank, the Louisiana Small Business Development Centers, Entergy, and Central Louisiana Electric Cooperative have also been instrumental in providing some of their most knowledgeable people to provide one-on-one business counseling and give lectures on a wide variety of topics.

Some of the training workshops and seminar topics include Business Innovative Research, 21st Century Marketing, Basics of Business, Financing Your Business, Federal Contracting Basics, Developing a Productive Workforce, and Basics of Lean Manufacturing. Other topics include Customer Relations, e-Commerce, Small Business Innovative Research (SBIR) Grants, Preparing Your Business for Survival and Continuity Before a Disaster, and How to Develop a Business Disaster Survival Plan.

Upon entering a specific area, the LBTC coordinates efforts with the Louisiana Business Incubation Association's business incubators in that specific area and encourages program participants to seek assistance from local Small Business Development Centers and incubator managers. The Center feels that it is essential to have local assistance in place once the *"Incubator on Wheels"* moves on to the next community.

The Mobile Classroom 2009.

The LBTC staff work with local community leaders, elected officials, and economic development organizations to invite home-based business owners and entrepreneurs to visit the mobile incubator when it visits a community. Local officials are trained to be both resource providers and the point of contact between the community and the LBTC once the mobile incubator has vacated the community.

MOBILE CLASSROOM FEATURES

- Custom-designed 18-wheeler retrofitted with state-of-the-art technology
- Wireless internet connectivity
- Plasma screen monitor for video presentations
- Podium area for speakers
- Theater style seating for up to 30 people
- Exhibit/display area
- Self-contained power
- Heating and cooling system
- Kitchen area
- Handicapped/wheelchair access
- Satellite system (donated by Capital One)

The LBTC staff work with local community leaders, elected officials, and economic development organizations to invite home-based business owners and entrepreneurs to visit the mobile incubator when it visits a community. Local officials are trained to be both resource providers and the point of contact between the community and the LBTC once the mobile incubator has vacated the community. After visiting the Mobile Classroom, Senator Mary Landrieu was able to see firsthand the impact the Louisiana Business & Technology Center and its Mobile Classroom have on small businesses throughout the state of Louisiana and stated, "This program is essential to keeping our rural economies strong."

MOBILE CLASSROOM HISTORY

The Mobile Classroom was first showcased in February of 2006 through the Louisiana Business & Technology Center's "Driving Louisiana's Economy" tour. This project has been a continual success due to the generous contribution of the Mobile Classroom by HealthTronics and funding provided by the U.S. Department of Agriculture – Rural Development, Louisiana Economic Development, Louisiana Public Facilities Authority, Louisiana Municipal Association,

MOBILE CLASSROOM STATISTICS

Indicator	Result	Margin of Error
Percent of attendees in business	73.9%	13.96%
Opened for business after attending the Mobile Classroom	23%	12.35%
Average number of employees	5.5	NA
Average # of jobs added per employer in 2008	1.35	NA
Average Length of business ownership	5.7 years	NA
Average rating of classes attended	3.72 out of 5	NA
Average Growth of Businesses who attended Mobile Classroom	24.54%	NA

Locations Visited	**115**
Number of Attendees	**1751**
Business Start-Ups	**114**
Jobs Retained	**312**
Jobs Created	**562**

Capital One, Louisiana Workforce Commission, and the Secretary of the State's office, as well as support from the LSU E. J. Ourso College of Business and the LSU Ag Center.

Since its inception, the Mobile Classroom has visited both hurricane-impacted and rural cities of Louisiana such as Marrero, Chalmette, Belle Chasse, Michoud, Lake Charles, Winnsboro, Eunice, New Iberia, Abbeville, Covington, Arcadia, Houma, and Mansfield, just to name a few. To our knowledge, there are no other programs of this type. The LBTC has received inquiries from the states of South Carolina, Michigan, Indiana, and Mississippi on the possibility of replicating the program.

IMPACT OF HURRICANES KATRINA AND RITA

On the wake of Hurricanes Katrina and Rita, the Center realized that the Mobile Classroom could be utilized for more than just entrepreneurial training sessions and courses. After the storms, it quickly converted into a disaster business-relief counseling center and a haven for small businesses impacted by the hurricanes.

The Mobile Classroom was deployed immediately into the hurricane-devastated areas of Louisiana to offer incubation services and encourage the rebuilding effort, thereby stimulating the economy. Many businesses lost their physical facilities and looked to the Mobile Classroom for access to laptop computers, internet access, training and counseling programs, and an area for business owners to consider the options that lay ahead of them. Other business incubators within the state referred local businesses to the Mobile Classroom for expertise in disaster business loans, funding programs, and business plan adjustments. With these unexpected and unfortunate events, the Louisiana Business & Technology Center recognized the true mobility of the Mobile Classroom through its ability to transform into an establishment that provides resources other than what it was initially intended to provide.

MOBILE CLASSROOM RECOGNITIONS

The LBTC and the *"Incubator on Wheels"* program have been recognized numerous times for this unique approach and efforts in creating a sustainable entrepreneurial culture across the state of Louisiana. Just recently, the Louisiana Business & Technology Center was awarded the 2009 Excellence in Economic Development Award in Rural Economic Development by the US Department of Commerce - Economic Development Administration for its "commitment to research-based, market driven economic development in helping grow the local economy." (Borlik, Bryan. "U.S. Commerce Secretary Gary Locke Announces Louisiana State University as Excellence in Economic Development Award Recipient." June 5, 2009) Other awards received include:

Immediately following Hurricanes Gustav and Ike, the Mobile Classroom with its satellite internet access allowed business owners to access the internet.

- 2009 Most Innovative Program by the National Business Incubation Association,
- 2008 IEDC Entrepreneurship Award,
- 2007 Southern Growth Policies Board Innovator of the Year, and
- 2006 AURP Excalibur Award for services provided in hurricane recovery.

The Louisiana Business & Technology Center is proud of the recognition received by this program and looks forward to many more years of service to the entrepreneurs of rural Louisiana.

LESSONS LEARNED

The *"Incubator on Wheels"* program has been well received and has shown great success by the number of communities requesting visits and repeat visits. The primary lesson learned in owning a unit of this sort is that a major expense that has to be covered is the actual moving of the unit from community to community. Since it is not self-contained and LSU does not have a tractor available to deploy the unit, the LBTC has had to enter into a contract with a third party to move the unit. This cost averages about $1,250 per move and with 30 moves per year, this expense averages just under $40,000 per year.

Although, we could deliver the same classes and training programs by renting local meeting facilities, the use of the mobile unit in "small town, rural Louisiana" attracts attention and makes it special for the participants and our local partners. A seminar in a meeting room at the chamber would go unnoticed, but when the Big LSU rig comes to town – IT IS NOTICED. When it rolls into town, people come out to see what is going on. The LBTC staff has the opportunity to visit many local communities and participate in their local culture. This allows them to determine what business support services are needed in the community and to assess local resources available to the small business owners and entrepreneurs. The LBTC can then customize technical assistance programs to meet the specific needs of the community.

The LBTC staff also has learned that the mobile classroom is the first step to get local business owners and entrepreneurs interested in getting help to grow their businesses. In depth counseling must be available as a follow-on program to make sure that assistance is available from local sources and the LBTC at LSU in Baton Rouge. This program builds local capacity in the community.

Our unit was donated, but there is funding available to other states to purchase similar vehicles to replicate this program. The program truly brings the experts to the people and has illustrated extreme value in the rural and disaster prone locations. Finally, since the unit is deployed over 120 days per year, it is very important to have a motivated and dedicated staff that is willing to be on the road for long periods of time.

The LBTC staff also has learned that the mobile classroom is the first step to get local business owners and entrepreneurs interested in getting help to grow their businesses. In depth counseling must be available as a follow-on program to make sure that assistance is available from local sources and the LBTC at LSU in Baton Rouge. This program builds local capacity in the community.

2009 ANNUAL CONFERENCE

IEDC would like to give special thanks to sponsors of the 2009 Annual Conference in Reno, Nevada for demonstrating their commitment to the important work of economic developers. Their generous support enabled IEDC to bring economic development leaders together for peer-networking, informative sessions and valuable insight into how we can better connect leadership and communities. The 2009 Annual Conference was a tremendous success that would not have been possible without the contributions of our valued sponsors. We proudly recognize the following sponsors as partners in helping economic developers to build strong, more vibrant communities:

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PANATTONI

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EDI Economic Development Institute

A Better Living A Better Life

DEVELOPMENT STRATEGIES

INL Idaho National Laboratory

CIRCUS CIRCUS An MGM MIRAGE Property

PNC BANK

Henderson

ORMAT

MEP • MANUFACTURING EXTENSION PARTNERSHIP

BRONZE SPONSORS

Argus

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BAYER

Squire Sanders

ECOLOGIC

BROOKS

B&D CONSULTING

CABARRUS

Heritage Bank of Nevada

FIRST INDEPENDENT

GARFIELD TRAUB DEVELOPMENT

LONGVIEW

Rural Development

dci

BNSF Railway

Mutual of Omaha Bank

THE RESEARCH TRIANGLE PARK

MMA

Irwin Union Bank

WAL*MART

CONTRIBUTORS

DHR

GreaterHalifax Partnership

LIONEL SAWYER & COLLINS

ERA | AECOM

Reno Tahoe

IEDC MEDIA PARTNERS

CITY COUNTY

GCX

OXFORD INTELLIGENCE

Business Facilities The Location Edition

IBM

The Location Partnership

EXPANSION

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OFFICIAL MEDIA PARTNER FOR THE 2009 ANNUAL CONFERENCE

SITE Selection

NEWS FROM IEDC

IEDC RELEASES " WHAT IS CARBON CAP AND TRADE? A PRIMER FOR ECONOMIC DEVELOPERS"

Spurred by the desire for greater energy security, climate change mitigation, long-term energy affordability, and the transition to a clean energy economy, we are starting to see the federal government, Congress, the international community, and the global business community move towards putting a price on carbon.

As a cap and trade system for managing the emission of carbon is now on the frontlines of U.S. energy policy, this cap and trade primer is intended to introduce those working in economic development to the basic components of a carbon cap and trade program. The primer also explores how local economies could prepare for, as well as plug in and benefit from, such a program.

THREE ORGANIZATIONS EARN AEDO ACCREDITATION

IEDC proudly announces the accreditation of four new AEDO organizations:

- **Ponca City Development Authority –** Ponca City, OK
- **St. Louis County Economic Council –** St. Louis, MO
- **Greater Houston Partnership –** Houston, TX
- **Hutto Economic Development Corporation –** Hutto, TX

These organizations display the professionalism, commitment to economic development, and technical expertise deserving of the distinction. The organizations join 25 economic development organizations recognized nationwide for excellence in economic development. For more information on AEDO, please contact Liz Thorstensen at ethorstensen@iedconline.org.

2010 LEADERSHIP SUMMIT

The IEDC 2010 Leadership Summit aims to help leaders in the economic development profession prepare for a transforming economy. The Summit takes place January 31-February 2 in the Greater Houston, TX, metro area at the Woodlands Resort & Conference Center.

The global recession has accelerated the pace of change within our key industries including manufacturing, financial services, energy, agriculture, and medical care. At the same time, the economic stimulus is creating new opportunities in these and other sectors. Our methods of growing quality jobs and promoting economic growth are consequently shifting with new attention to possibilities of entrepreneurship and sustainability. Given all of this flux, the economy of the future will be dramatically different than the economy of today.

To remain effective, economic developers will need to adapt to a new set of opportunities and competitive factors. Join the top professionals in the field as we explore and prepare for the new economic engines of our future.

IEDC PARTNERS WITH EPA ON SUSTAINABILITY ROUNDTABLE

IEDC partnered with the U.S. Environmental Protection Agency (EPA) Office of Brownfield and Land Revitalization to hold a special Sustainability Roundtable as part of its Annual Conference in Reno, Nevada. The roundtable served as a platform for discussion among economic development professionals, U.S. EPA officials, and others that have been actively engaged in sustainable development initiatives to learn about emerging trends, issues and challenges, and identify areas where greater assistance is needed.

Topics of discussion included (1) Workforce Development / Green Jobs, (2) Renewable Energy and Energy Efficiency, and (3) Financing Green Buildings. The results of the discussions will be summarized in a white paper.

WORKSHOP FOCUSES ON LESSONS LEARNED ON SMALL BUSINESS RECOVERY

Through grant funding from the Economic Development Administration, IEDC is organizing a unique workshop in December to focus on capturing the Lessons Learned on Small Business Recovery in partnership with the U.S. Chamber of Commerce's Business Civic Leadership Center (BCLC) and the National Association of Development Organizations (NADO). This workshop is bringing together a high-level group of approximately 25 to 30 local, state, and federal leaders with post-disaster economic recovery expertise from a variety of geographies across the nation.

Through a professionally-facilitated, peer engagement format, the workshop will determine what worked and what didn't in terms of these recovery efforts from catastrophic events occurring in the last 10 to 15 years. It will also create the foundation of a briefing paper that will highlight these best practices/elements to be incorporated into a potential model for small business recovery.

CALENDAR OF EVENTS

RECERTIFICATION FOR CERTIFIED ECONOMIC DEVELOPERS

Fulfill a recertification requirement without tapping into your budget! *Earn* ***two credits*** *towards your next recertification by having an article published in the* Economic Development Journal, *IEDC's quarterly publication.*

This is one of a number of ways that you can pursue recertification credits. Submissions are accepted throughout the year. The Journal Editorial Board reviews all articles and determines which articles are accepted for publication.

For more information contact Jenny Murphy, editor, at murp@erols.com **(703-715-0147)**.

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

The Power of Knowledge and Leadership

IEDC sponsors an annual conference and a series of technical conferences each year to bring economic development professionals together to network with their peers and learn about the latest tools and trends from public and private experts.

IEDC also provides training courses and web seminars throughout the year for professional development, a core value of the IEDC. It is essential for enhancing your leadership skills, advancing your career, and, most importantly, plays an invaluable role in furthering your efforts in your community.

For more information about these upcoming conferences, web seminars, and professional development training courses, please visit our website at www.iedconline.org.

CONFERENCES

2010 Leadership Summit
January 31-February 2, 2010
Houston, TX

2010 Federal Forum
April 18-20, 2010
Alexandria, VA

2010 Spring Conference
June 6-8, 2010
Oklahoma City, OK

2010 Annual Conference
September 26-29, 2010
Columbus, OH

TRAINING COURSES

Managing Economic Development Organizations
January 28-29, 2010
The Woodlands, TX

Economic Development Finance Programs
February 17-19, 2010
Lansing, MI

Economic Development Credit Analysis
March 3-5, 2010
Los Angeles, CA

Economic Development Strategic Planning
March 18-19, 2010
Springfield, MO

Real Estate Development & Reuse
April 1-2, 2010
Atlanta, GA

Business Retention & Expansion
April 15-16, 2010
Alexandria, VA

Economic Development Credit Analysis
May 5-7, 2010
Lansing, MI

Business Retention & Expansion
May 27-28, 2010
Baltimore, MD

Real Estate Development & Reuse
June 3-4, 2010
Oklahoma City, OK

Economic Development Marketing & Attraction
June 17-18, 2010
Lansing, MI

Neighborhood Development Strategies
June 28-29, 2010
Baltimore, MD

Business Retention & Expansion
July 15-16, 2010
Minneapolis, MN

Economic Development Strategic Planning
August 5-6, 2010
San Francisco, CA

Technology-led Economic Development
August 26-27, 2010
Lansing, MI

Workforce Development
September 23-24, 2010
Columbus, OH

Entrepreneurial & Small Business Development Strategies
October 7-8, 2010
Atlanta, GA

Economic Development Marketing & Attraction
October 14-15, 2010
Baltimore, MD

Real Estate Development & Reuse
November 4-5, 2010
Tampa, FL

Business Retention & Expansion
November 18-19, 2010
Kansas City, MO

Technology-led Economic Development
December 2-3, 2010
Atlanta, GA

CERTIFIED ECONOMIC DEVELOPER EXAMS

January 30-31, 2010
Houston, TX

April 17-18, 2010
Alexandria, VA
(Appl. Deadline: February 15, 2010)

June 5-6, 2010
Oklahoma City, OK
(Appl. Deadline: April 5, 2010)

September 25-26, 2010
Columbus, OH
(Appl. Deadline: July 26, 2010)

2010 WEB SEMINAR SERIES

January 21
Developing Community-Based Venture Financing

February 18
Creating Young Professional Networks for Talent Attraction and Retention

chesapeake science &

SECURITY CORRIDOR

By Karen L. Holt

Aberdeen Proving Ground (APG) is located at the top of the Chesapeake Bay, midway between Baltimore and Philadelphia. The installation and its current 69 tenants serve as Harford County's top employer and a leading economic engine generating approximately $3 billion in revenue annually. The 72,000-acre installation, comprised of equal parts water and land, was established in 1917 and has served historically as a test and evaluation site. Military training students have comprised a significant portion of APG's composition as the Army Ordnance Center and School housed 4,000-5,000 students for incremental training exercises.

Aberdeen Proving Ground is located at the head of the Chesapeake Bay in the northeastern corridor of Maryland.

Harford County, which is host to APG, has a population of approximately 260,000. A diversified workforce offers a mix of manufacturing and distribution among defense contracting and other technical and professional services. Like its northeast neighboring county, Cecil, both jurisdictions have out-commuting populations of nearly 50 percent.

The BRAC 2005 decision brings significant growth to the APG installation and its surrounding community, resulting in the largest economic boon since World War II. The following 14 actions impact command, directorate or activities from eight states for the BRAC implementation deadline of September 15, 2011:

- Relocating the Communications-Electronics Life Cycle Management Command and the Communications-Electronics Research, Development & Engineering Center from Fort Monmouth, NJ, to APG;
- Relocating and consolidating Information Systems Development and Acquisition from Redstone Arsenal, AL, to APG;
- Relocating procurement, management/support for depot level reparables from Ft. Huachuca, AZ, to APG and designating them as Inventory Control Point functions;
- Relocating Army Test & Evaluation Command Headquarters and Elements of the Army Evaluation Center from Alexandria, VA, to APG;
- Relocating the Army Research Laboratory Vehicle Technology Directorate from Columbus, OH/Langley, VA, to APG;
- Relocating the Army Research Institute Human Systems Research from Fort Knox, KY, to APG;

Karen L. Holt is BRAC Manager with the APG-CSSC Regional BRAC Office, Aberdeen, MD. (klholt@harfordcountymd.gov)

A REGIONAL APPROACH TO BRAC IMPLEMENTATION IN THE ABERDEEN PROVING GROUND (APG) COMMUNITY

Aberdeen Proving Ground (APG), nestled at the top of the Chesapeake Bay in Maryland, will transform its 1917 installation with significant gains in research, development, testing and evaluation as a result of BRAC 2005. This article focuses on how the post landscape will become a technology campus for homeland security while outside the installation gates, a region collaborates in preparation for the largest economic impact to the community since World War II with the arrival of nearly 30,000 scientific and technical civilian jobs converging from eight states.

- Relocating the Joint Program Executive Office for Chemical and Biological Defense from Falls Church, VA, to APG;
- Relocating Air Force Non-Medical Chem-Bio Defense Development & Acquisition from Brooks City Base, TX, to APG;
- Relocating Chem-Bio Defense Research, Defense Threat Reduction Agency from Fort Belvoir, VA, to APG;
- Relocating Medical Chemical Defense Research from Walter Reed Army Institute of Research from Forest Glen Annex to APG;
- Relocating the Ordnance Center and School from APG to Fort Lee, VA; and
- Relocating the Army Environmental Command from APG to Ft. Sam Houston, TX.

These actions result in 8,500 direct jobs to the installation, mostly civilian DoD; a significant decrease in the installation's military presence with the loss of the ordnance school and center; and an exponential growth of a contractor tail (defense contractors that will follow the mission move and relocate within the region) which is conservatively estimated at 2:1. Overall, the BRAC 2005 decision results in nearly 30,000 direct, indirect, and induced jobs to the APG community.

APG's transformation, expedited by BRAC, brings RDT&E to heightened levels amidst $1.3 billion in construction of new facilities and generating contract revenues in excess of $15 billion annually. A knowledge economy will transform the campus of the APG installation and exponentially expand the defense contractor base throughout our growing defense community.

This expedited growth has been addressed through an aggressive DoD plan including phased early moves and temporary (swing) space, with 350 positions relocated by end of 2008; 1,250 by November 2009; a total of 1,800 projected by year end 2009, and an additional 4,000 projected for 2010. An estimated 1,600 vacancies are projected for FY 2011 just for functions of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance, better known as "C4ISR". Modification of existing installation facilities, relocatables, and shared space among defense contractors in the Enhanced Use Lease (EUL) facilities, which are privately developed facilities on a federal enclave that provide negotiated, in-kind services to the installation with additional projects and fees paid to the local jurisdiction in lieu of taxes, have accommodated these moves to date.

COMMUNITY RESPONSE

Prior to the BRAC 2005 announcement, the Harford County Executive appointed a BRAC Planning Advisory Committee (BPAC), a 24-member county-based workgroup to develop a BRAC action plan with timelines, budgets, and benchmarks for successful BRAC implementation related to infrastructure, transportation, workforce and education, and public health and safety. Harford County also coordinated efforts with surrounding jurisdictions to market the region in identifying the location of Aberdeen Proving Ground.

Simultaneous to the BPAC's early work, Harford County, in collaboration with its neighboring jurisdictions of Cecil County, Baltimore County, and Baltimore City, under the guise of the "Chesapeake Science and Security Corridor," applied for and was awarded approximately $1.8 million in funding by the Office of Economic Adjustment (OEA) to study key infrastructure issues outside the installation's gate and coordinate marketing efforts related to BRAC. A BRAC manager was hired in October 2006 and a regional BRAC office was established at the Higher Education Advanced Technology Center (HEAT) located about four miles from the installation, and easily accessible from US Interstate 95.

The Chesapeake Science & Security Corridor (CSSC) formalizes its collaborative efforts with a Memorandum of Understanding (MOU) signing in April 2007.

Prior to the BRAC 2005 announcement, the Harford County Executive appointed a BRAC Planning Advisory Committee (BPAC), a 24-member county-based workgroup to develop a BRAC action plan with timelines, budgets, and benchmarks for successful BRAC implementation related to infrastructure, transportation, workforce and education, and public health and safety.

The BRAC manager was given regional working parameters under supervision of Harford County's Office of Economic Development due to Harford's role as lead agency on the federal grant. The BRAC manager and office were initiated to serve in a regional capacity to

CSSC Named Active Base Community of the Year by the Association of Defense Communities: (L to R) : Tim McNamara, Deputy Garrison Commander, APG; David Craig, Harford County Executive; Karen Holt, BRAC Manager, CSSC; Rob McCord; Harford County Attorney; Jim Richardson, Harford County Director of Economic Development, and Vernon Thompson, Cecil County Director of Economic Development.

The Chesapeake Science & Security Corridor was named 2009 Active Base Community of the Year for its strong partnership between the post and the community.

The Chesapeake Science and Security Corridor was now functioning as a consortium, comprised of eight jurisdictions in three states with various representatives (planners, economic developers, garrison and government officials, etc.) meeting monthly to discuss BRAC related issues in the region.

administer grant funding and provide oversight for initial study projects such as a demographics study and capital facilities inventory, to serve as a liaison to Harford's BPAC, and to support development of neighboring jurisdictional BRAC plans.

This coordinated effort grew as the magnitude of growth under expedited timelines was fully realized and an amendment to the grant expanded staffing to include a BRAC coordinator and an administrative assistant to focus on marketing and outreach, and additional contractual services dollars to plan and implement a variety of studies. Collaboration expanded to include strategic partnerships as we looked to neighboring jurisdictions in Pennsylvania and Delaware and strengthened our regional footprint through partnership efforts with the Baltimore Metropolitan Council, Wilmington Area Planning Council, the Economic Alliance of Greater Baltimore, and the Greater Baltimore Committee, ultimately defined by an approximate 45-minute commute radius to the installation.

The Chesapeake Science and Security Corridor was now functioning as a consortium, comprised of eight jurisdictions in three states with various representatives (planners, economic developers, garrison and government officials, etc.) meeting monthly to discuss BRAC related issues in the region.

In April 2007, the Chesapeake Science & Security Corridor (CSSC) signed a formal Memorandum of Understanding among its member jurisdictions and strategic partners symbolizing commitment to work collectively throughout the BRAC implementation process. The Aberdeen Proving Ground Garrison serves as ad hoc military advisor for the Consortium.

Three priority areas were identified to address BRAC community needs: transportation, land use and infrastructure, and workforce and education. They continue to be the Consortium's primary focus at monthly meetings where a core representation of approximately 35 different government entities convene to discuss topics such as installation construction updates, road and transit improvement updates, logistical personnel data, workforce training/job fair briefings, etc.

In January 2008, the Consortium was selected by the National Association of Counties as a Sustainable Communities Award recipient, one of ten communities nationwide recognized for its collaboration on economic development efforts. In August 2009, the Association of Defense Communities named CSSC "Active Base Community of the Year," praising the partnership between community and installation regarding BRAC implementation.

With a strong partnership established between the APG Garrison and other tenant activities, Harford County's cooperation to serve as lead facilitator of funding on this regional planning approach through interagency agreements with partnering jurisdictions, and total awards of more than $7 million in planning monies executed throughout the region, the Consortium has comprehensively studied a variety of issues in support of BRAC implementation in the APG community. This collaboration has proved particularly beneficial in a down turned economy where resources have become increasingly more limited.

Various studies have been completed or are underway through the Consortium's efforts. Early on, both a demographics study to project growth impacts throughout the region and a capital facilities inventory and gap analysis were conducted to better plan for BRAC-related growth. Building upon these findings, several large initiatives have begun including a multimodal transportation center feasibility study that examines municipal, county, state, and regional capabilities to establish a transportation hub within Aberdeen to alleviate congested roadways and accommodate rail, commuter bus, and shuttle service on and off the installation. Another development is a regional GIS enablement tool, a web-based application that allows for land use planning across county and state boundaries.

A regional workforce analysis is currently underway that looks at the public service sector (healthcare, education, law enforcement, and emergency services) to identify gaps in projected service demands as well as identify recruitment strategies and opportunities for spousal employment. A workforce training curriculum assessment, coordinated through four community colleges, is examining existing curriculum while assessing future training needs associated with mission growth at APG. More than 20 different studies addressing transportation, infrastructure or workforce have been contracted through CSSC efforts.

The MD 715 Gate is the first BRAC project to be completed in Maryland, May 2009.

PRIORITIES & CHALLENGES

Transportation

In general, northeastern Maryland has a less mature road system than other parts of the country. Gaps in connectivity in rail service in this region do not offer access to the installation from the northeast region. In fact, commuter rail service ceases less than six miles east of Aberdeen Proving Ground.

Road improvements, identified in a list of 23 intersections, were reduced to eight, then six, then one when state budget deficits and funding deferrals eclipsed efforts to address commuter congestion. Modeling simulations of the roadways leading to the installation post-BRAC show extensive gridlock.

Commuter bus routes have been reduced and currently no shuttle service on and off the installation exists. Ample parking on the installation provides no disincentive to utilize mass transportation and the earliest efforts to establish service aligned with APG commuter schedules would be 2014, three years after most workers have established commuter patterns.

The challenges are being openly discussed through coordinated efforts among local and state transit-related agencies; innovative approaches like Harford County's "Road Club" to examine funding opportunities for public-private partnerships; exploration of DAR funding in support of roads leading onto the installation, and encouraging joint state efforts through the CSSC Regional Rail Committee to engage federal delegations in addressing corridor issues.

Infrastructure

Water and sewer infrastructure needs were keenly focused upon in the early stages of BRAC to accommodate growth in an expedited time frame. The installation receives its water supply from the city of Aberdeen which is also experiencing tremendous growth outside the gate. Capacity issues morphed into allotment issues as partnerships developed and a regional water service authority is under exploration to examine function and feasibility. Expansion of existing waste to energy facilities, which convert refuse to energy in the form of electricity and steam supplied to APG, was also studied in preparation for BRAC implementation.

These challenges have been addressed proactively with the MD Lt. Governor's BRAC Water Summit, a water agreement established between Harford County and the city of Aberdeen, and expansion of a key water treatment facility.

Workforce/Education

Extensive outreach (relocation fairs, motorcoach tours, town hall meetings, etc.) to the incoming BRAC workforce and their families has had a positive impact on the percentage intending to relocate. In 2006, only 20 percent expressed intent to move with their jobs; today that number approaches 60 percent. The state of the economy has offered bittersweet support regarding those willing to relocate as opportunities for alternative employment have diminished greatly. Unfortunately, the housing market has left many unable to take advantage of incentive programs with upside down mortgages in closing base communities.

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Science and engineering represent nearly 40 percent of the jobs transitioning to the region, a sector already competitive on the national level and compounded by retiring baby boomers. Coupled with experienced acquisition and government contracting personnel, competition among government DoD and defense contractors creates a shell game of employment moves as 69 other tenant organizations become vulnerable to the impacts of resulting vacancies within their organizations.

Fundamental process differences between government hiring and the private sector leave many qualified candidates out of the hiring circle in compliance with federal guidelines. Interns--newly-hired recent college graduates-- have been a progressive solution by the government to grow its own while acclimating to organizational culture. It offers rapid advancement and a training ground to replenish a seasoned and retiring workforce.

Spousal employment for the civilian workforce continues to be a focus as dual-income households make decisions about relocation. Sectors such as teaching and healthcare that looked to the incoming population as a boon to the workforce demand when BRAC 2005 was announced have experienced layoffs and staff reductions under current economic conditions.

Regional communty colleges throughout the corridor are engaged in assessing workforce training needs and aligning curriculum in support of APG's growing workforce. The two closest community colleges have entered into partnerships with higher education institutions to bring four-year programs to their campuses.

A regional higher education center has been identified as a need in the APG region. Recent studies indicate degree requirements between 2010 and 2019 show demand averages at 205 bachelors degrees, 163 masters degrees, and 21 doctoral degrees annually in support of the APG defense mission.

Extensive higher education institutions are available in the Baltimore-Washington region, but outside a 35-mile radius of Aberdeen. The closest university to the installation is out of state at 25 miles from the installation. The Higher Education Advanced Technology (HEAT) Center in Aberdeen brings satellite programs to the APG community, but is currently at capacity. Disparity in perceived interest among higher education institutions within the region in responding to program needs at APG is an area the CSSC continues to address.

Regional communty colleges throughout the corridor are engaged in assessing workforce training needs and aligning curriculum in support of APG's growing workforce. The two closest community colleges have entered into partnerships with higher education institutions to bring four-year programs to their campuses.

These challenges have been addressed through regional job fairs in coordination with incoming mission activities; a series of community tours that showcase quality of life; and development of the *APG Maryland Welcome & Relocation Guide* to offer a comprehensive, regional tool to explore living within the Chesapeake Science & Security Corridor. The Consortium has also engaged BRAC early movers as well as undecided DoD personnel who are eligible to relocate through demographic and workforce surveys to continue to target community messages and address concerns in a timely manner.

The state of Maryland established a BRAC Transition Center on the Ft. Monmouth, NJ, installation. Designed to provide personalized assistance on relocation, the center has exceeded 5,600 visits.

The issues involving higher education have been addressed through early dialogue that brought mission leadership and higher ed representatives together in discussing future needs at APG. As a result, a University Day followed where Ft. Monmouth hosted higher ed officials in its laboratories and demonstrated technologies that will require the greatest demands for modified or customized curriculum needs. A feasibility study is underway to look at expansion of the Higher Education Applied Technology (HEAT) Center, and the state has identified the need for a regional higher education center in the APG community within its state BRAC action plan. The senior mission command at APG has targeted outreach efforts in engaging both flagship universities in Maryland and Delaware.

A Community & Installation Partnership

The installation has maintained a strong partnership with the community during BRAC implementation. Briefings to incoming missions and directorates, congressional delegations, and state and federal officials are co-presented by garrison and community BRAC representatives; tours are organized jointly, transportation committees have dual representation, and concerted efforts are made to provide consistent information in terms of data, timelines, and updates both on- and off-post. The Enhanced Use Lease (EUL) negotiations brought together county officials and installation leadership for frank discussion on priorities and fostered a co-dependence of service provisions serving as a win-win for all stakeholders.

PROJECT NEEDS ASSESSMENT

Transportation

Six intersection improvements identified within a five-mile radius of APG have gained regional consensus; however, one top priority intersection has been identified in light of state transportation revenue shortfalls. Currently, the intersection identified, which leads directly onto the base, is only at 65 percent design. Collectively, the improvements are estimated to cost $90.84 million with $30 million allocated, resulting in a funding gap of $60.84 million. The one intersection deemed essential is slated to exceed $31.75 million; however, even given a green light to proceed today, it could not be completed prior to September 15, 2011.

A Multi-modal Transportation Center (MTC) was deemed feasible and the existing Aberdeen Train Station was identified as the optimal site after screening approximately 19 different criteria. Currently, no shuttle service is available on or off the installation and train schedules to and from the station afford an APG employee as a commute rider the opportunity to work only a 5.5 hour work day at best. Commuter bus service can not operate out of the over-capacity parking facility as it currently exists.

A Multi-modal Transportation Center (MTC) was deemed feasible and the existing Aberdeen Train Station was identified as the optimal site after screening approximately 19 different criteria.

Platform expansion and Americans with Disabilities Act (ADA) compliance issues would be priority improvements; the station itself would need to be relocated westerly. Again, even with funding for engineering and design in hand, and $60 million in construction dollars identified, the MTC would not be complete before 2014. This would be three years after nearly 20,000 direct and indirect jobs have established themselves in the APG community and ingrained travel behavioral patterns as single-rider roadway commuters.

Infrastructure

The primary funding source for water & sewer projects is through local bonding. Local bond measures in most of the CSSC jurisdictions (i.e., Maryland counties) do not need to be approved through referendum. However, bond measures must be approved by county commissioners. County utility systems (i.e., those not managed by private operators) also have the ability to set utility rates. However, rate increases require the support of a large number of elected officials. A sum of identified project costs associated with water and wastewater expansion facilities is estimated at $53 million with a $49.9 million funding gap.

A key challenge here is the inability to determine the extent to which federal funding is required to carry out these projects in the CSSC area for one primary reason: the extent and distribution of the projected growth in the CSSC region is not yet understood to a point where it is possible to make accurate projections about what specific projects will be required to mitigate growth at a local level. With an anticipated 95 percent-civilian growth population which has the choice to live among four states and 11 counties and still reside within a 50-minute commute to Aberdeen Proving Ground, identifying key growth areas continues to be a challenge.

Our collaboration with incoming mission leadership as well as the defense contractor community has provided survey data on early movers' zip codes and intent of workforce to relocate by jurisdiction. Transfer of Function (TOF) letters are currently under issue among incoming missions, which will assist in identifying workers who are not coming (and in turn are offered assistance through priority placement programs). However, this still does not provide accurate data for numbers who are relocating, as TOF is not binding for those who indicate they intend to relocate.

Education

School construction priority needs identified in Harford and Cecil Counties are estimated at $152.9 million with a funding gap of $139.8 million. In Harford County, forward funding of school construction has been used to accommodate growth in recent capital facility projects for education. In Cecil County, because Maryland enrollment projections are driven by historical data (such as enrollment trends and birth rate), and the wave of BRAC-related students has not yet been part of any head count, state-rated enrollment only supports a 700-student capacity for the newly designed 840-capacity Comprehensive Technical High School. This puts the onus of the additional seat funding on the local level. As a result, the school board has lowered the priority to address other systemic school improvement projects throughout the county.

Survey data indicates that Harford and Cecil Counties will receive approximately 70 percent of the anticipated BRAC residential growth and, according to a 2007 demographics study, a public school population of nearly 6,000 students.

SUCCESSES

With roughly 450 working days remaining until the BRAC implementation deadline, there is little time to pause for reflection. That said, the following key points come to mind as potential best practices during planning and implementation efforts:

- Establish a regional approach early on in the planning process. This was critical to building relationships, achieving consensus and developing priorities for the APG community that are supported by multiple entities at municipal, county, and state levels.

Establish a regional approach early on in the planning process. This was critical to building relationships, achieving consensus and developing priorities for the APG community that are supported by multiple entities at municipal, county, and state levels.

- Enhance a working partnership between the community and the post that is focused on support for the warfighter and installation transformation. The impact of delivering a unified message with consistent information both inside and outside the gate has nurtured credibility, streamlined communications, and focused resources to priority areas.
- Create a Regional BRAC Office to serve as a communications clearinghouse; maintain a comprehensive BRAC website; disseminate a daily e-news distribution on BRAC-related activity; distribute regional print materials; and coordinate outreach efforts for community tours, presentations, etc. Over-communicating has been an effective tool to increase awareness and understanding among constituent groups in the growth-impacted communities as well as the incoming population affected by the BRAC decision. More than 150 presentations are provided annually by the Regional BRAC Office – from congressional briefings, to Chamber of Commerce luncheons, to civic organizations and on-site quality of life presentations for incoming mission activities.

LESSONS LEARNED

- Be flexible! The numbers are ever-changing and external forces (i.e., economic conditions) can play havoc on rigid plans. Look for opportunity in every challenge. Engage your stakeholders, develop messages for multiple audiences, and stick to key messages and talking points when briefing elected officials.
- The Office of Economic Adjustment (OEA) is an excellent resource not just as a funding source, but for the technical assistance it provides through experienced staff.
- To growth communities with a large civilian influx: quit looking for best practices and recognize you're a pioneer! Network "outside your box" and look for creative approaches to addressing critical issues.

EXPERIENCE WORTH SHARING

Empathy is an important tool in successful BRAC implementation. Despite the technical aspects of sewer capacities, roadway easements, and anticipating projected needs of high bay or sensitive compartmentalized information facility (SCIF) space versus Class A office space, BRAC implementation has a face – be it military, DoD or defense contractor personnel. They're a co-worker, parent, coach, or congregation member, maybe a caregiver for aging parents. BRAC is a monumental, logistical process, but first and foremost it's about relationships. Take the time to invest in understanding the issues. By building relationships, you will build an investment in ambassadorship for your community and develop peer endorsements that reach farther than you imagined!

For more information about the Chesapeake Science & Security Corridor's BRAC implementation efforts in the APG community, visit www.apg-cssc.com.

the electric company

TO THE RESCUE

By David J. Robinson

Power utilities and economic development go hand-in-hand. Whether as regulated monopolies or competitors for major power customers, utilities often play a major role in the recruitment and retention of companies and economic development across the United States. Regional, state, and even our national economic recovery in many ways may depend on the role of power utilities in our economy. For America to remain a global economic power, we must remain a place that makes things. Whether it is cars or the next cure for cancer, America's standard of living cannot be based upon a purely service sector economy. The cost of electric power for manufacturing customers and the role these power utilities play in implementing economic development strategy both make America's power utilities a key to our economic future. In addition, power utilities often play a strong private sector role in retaining and recruiting major employers.

In states with regulated monopoly electric power utilities, the relationship between electric utilities and economic development is fairly simple. For states that joined the electric deregulation bandwagon, however, the decision to devote resources to economic development becomes much more challenging for electric utilities. States such as Ohio offer an interesting model for economic development through a hybrid regulatory model matched with an aggressive electric rate incentive program – a significant development since utilities are uniquely well-equipped to answer the call for economic development leadership.

W.C. Beckjord Station is a nominal 862-megawatt facility with six coal/steam units located in New Richmond, Ohio, approximately 20 miles east of Cincinnati.

THE UTILITY ECONOMIC DEVELOPMENT MODEL

The business case for regulated utilities to invest in economic development has existed for quite some time. However, the "deregulation" of the power industry in states across the U.S. puts that business case in jeopardy. Now many of those same states are exiting the deregulation experiment and time will tell whether the power companies jump back into economic development. Although there are a few policy pieces yet to be put in place, the future success of electric and natural gas utilities may well depend on a renewed program of economic development.

David J. Robinson is the founder of the Montrose Group, LLC, which provides bi-partisan public policy advocacy and economic development consulting for corporate site location and site development projects working with local, state, and federal government officials to enable public-private partnerships. (drobinson@montrosegroupllc.com)

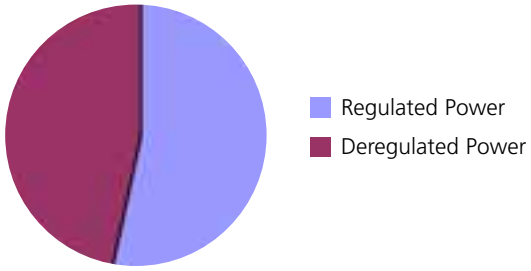
SAVING AMERICA'S INDUSTRIAL HEARTLAND THROUGH ELECTRIC RATE INCENTIVES

Success of America's industrial sector has always been dependent on power utilities. Regulation of these utilities and the use of electric rate incentives impacts how an electric utility operates in our economy. Ohio offers an interesting model for the regulation of the electric industry and the use of electric rate incentives. Ohio created a hybrid system of regulation. Electric utilities are permitted to use either a monopoly-based regulatory approach or jump into the marketplace. The state also created an aggressive electric rate incentive program. Ohio may be the proving ground that determines if electric companies can lead America's industrial heartland into economic recovery. If not, the electric companies will suffer along with everyone else.

Back in the day, customers knew who provided their power. When a problem arose, a solution was just a phone call away. In exchange, utilities charged a price – set by a government regulatory process – that was based on costs and allowed a profit. Utilities charged customers for the costs of moving power from the source to customers' homes and businesses. These costs included purchasing the power source, delivering power to customers, measuring customers' use, providing emergency service, and billing customers. Under this system, utilities hired an army of staff to sell their product and to promote economic development in their territories. The relationship between utilities and economic development was symbiotic: more factories, office parks, shopping malls, and housing developments meant more power users, a stronger economy, and better funding for schools and state and local governments. It was a unique social and economic compact.

Things began to change when industries such as airlines and others were deregulated in an effort to break the economic malaise of the 1970s. Deregulation eventually made its way to the power utility industry. Massive capital investments and the detailed logistics of serving millions of customers complicate deregulation in the power utility industry. By most counts, 19 of the 50 states now have deregulated electric power service but this constitutes 47 percent of the energy used in the U.S.[1]

US Percentage of Power From Electric Regulated v. Deregulated States



States such as Ohio, Pennsylvania, New Jersey, Illinois, Michigan, New York, Connecticut, Rhode Island, Maine, New Hampshire, California, Arizona, Nevada, Oregon, Maryland, Delaware, and Texas are considered "deregulated" for electric power purposes while Virginia and Montana recently enacted laws to "reregulate" after policy makers grew concerned about the price impact of deregulation.

As a result of deregulation legislation, power service marketers entered the game, placing different utility industry players in competition with one another. Although this approach offered many of Adam Smith's promised benefits of capitalism, it also killed the business case for utility industry economic development armies. In particular, the promise of competitors brought the threat of lost customers. Why, so the reasoning went, would an incumbent power company invest in a sales force when prospective customers could very well end up obtaining power from a utility marketer? As a result, most deregulated utilities scaled back economic development efforts to providing general support for a few, targeted economic development partners. The electric rider offers an interesting middle ground for keeping electric utilities in economic development business.

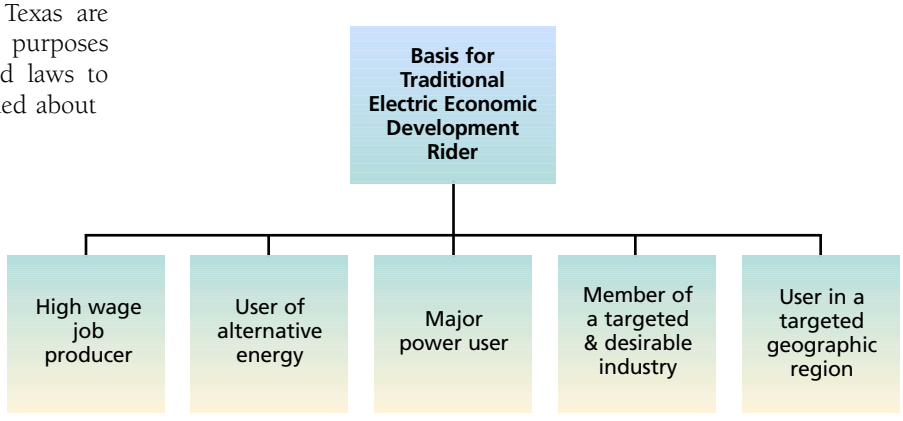
ELECTRIC ECONOMIC DEVELOPMENT RIDER TO THE RESCUE

An electric economic development rider has traditionally been defined as some form of special price provided for a user that policy makers determine deserves a unique rate for service. That "uniqueness" determination could be based upon economic factors such as production of jobs or capital investment, use of alternative sources of power, use of substantial amount of power, membership in a targeted industry or location in a targeted geographic location.

Power companies often focus electric economic development riders into targeted industries. Union County, Georgia, offers three ways for gaining electric load incentives from Blue Ridge Mountain Electric Membership Corporation:

- Companies in mining, manufacturing or bulk transportation with a minimal additional electric for new or existing customers of 100 kilowatts;
- Commercial or industrial customers with a minimal additional electric load requirement of 250 kilowatts with all electric HVAC systems, 50 percent or more floor space that is heated and cooled; and HVAC, interior lighting and /or cooking represent 50 percent or more of the customer's rated electric load; or
- Other qualifying customers that plan to add 250 kilowatts of electric load for all electric HVAC, water heating and/or cooking.[2]

Baltimore Gas & Electric (BGE) offers an economic development incentive rate program targeted within the company's central Maryland service territory that can provide electric rate reductions for up to five years.



These rate reductions apply to BGE's distribution portion of the customer's bill, not the customer's commodity charges. Discounts may be as high as 15 percent to companies that meet the following qualifications:

- Price reduction influences companies' decisions to locate new operations or expand current operations;
- Other government economic development incentive offers involved;
- Qualifying power load of new or incremental power at a minimum of 500 kilowatts or 200 kilowatts if located in an Enterprise Zone or Empowerment Zone;
- Employment expansion of at least ten new jobs; and
- Retail establishments are excluded.[3]

The Duke Energy Envision Center, located just south of Cincinnati in Erlanger, Kentucky, is helping educate people on the potential of smart grid technology. The center features a "smart" home complete with solar panels and an electric vehicle, an apartment complex with advanced meters, and a power delivery control center with real-time monitoring.

New Jersey offers a utility rate program to provide incentives and rebates for the installation of high efficiency equipment as well as rate discounts for companies that locate in targeted urban centers.[4] Also, Indiana, through Duke Energy, offers an economic development rider to select customers that can reduce the maximum demand load charges by 60 percent over 12 months for existing or new customers who add at least 25 new employees per 1,000 kilowatts of new electric load or at least $10 million in capital investment per 1,000 kilowatts of new load. The maximum load to qualify for the rider is 10,000 kilowatts.[5]

Municipalities even get in the electric economic development rider game. New York City promotes a Business Incentive Rate energy discount program co-administered by the NYC Economic Development Corporation and Con Edison. NYC's program is designed to encourage economic growth in the manufacturing and industrial sectors by offering defined discounts off Con Edison's electric delivery charges for manufacturers and wholesale distributors with facilities in the five boroughs of New York. Retail establishments and governmental operations are excluded under this program and electric rate reductions range from 30-35 percent for a five-year term.[6]

Municipalities with their own publicly owned electric utility are often even more aggressive in linking economic development incentives with power discounts. City Water, Light & Power of Springfield, Illinois, offers an economic development rider to encourage new businesses to locate in its city. Focused on industrial customers, the program also offers incentives to non-retail businesses that are large users of power. Larger incentives are provided to "major expansions" which require a monthly demand increase of at least 125 kilowatts over the customer's average base period demand. Major expansion projects can gain discounts as large as 50 percent in year one that decline by 10 percent per year until they terminate after year five. Minor expansions, requiring a demand increase of 75 percent, may receive an incentive lasting just three years but still offering 50 percent off in year one, 30 percent in year two, and 10 percent in the final year.[7]

Ohio's roller coaster ride with electric deregulation offers an interesting national model for how the issue impacts economic development.

Electric economic development riders are nothing new to the scene. However, their use for states that try to escape the bonds of electric deregulation offers some interesting issues.

OHIO AS A MODEL: HYBRID ELECTRIC REGULATION

Ohio's roller coaster ride with electric deregulation offers an interesting national model for how the issue impacts economic development. Ohio's electric deregulation legislation, SB 3, was enacted in 1999.[8] SB 3 not only created a start date for competition but also created a "Market Development Period" that included an electric rate freeze. This rate freeze was scheduled to expire on December 31, 2008. As the date for the rate freeze expiration began to close in, the same industrial customers that pushed for deregulation became concerned that the "promises" of competition would not be delivered. In April of 2008, the Ohio General Assembly and Governor Ted Strickland responded to concerns regarding electric rate shock by enacting SB 221.[9] This legislation addressed two legal and policy goals:

1. It partially eliminated the deregulation framework established by SB 3 by creating a new pricing context; and
2. It promoted alternative energy by creating a goal for electric utilities to obtain 25 percent of their energy from alternative sources by 2025.

In essence, Ohio created a hybrid electric regulatory framework that permitted investor owned electric utilities to go to the marketplace or opt for a non-market based regulatory framework where regulators set rates.

Even more significantly, a little noticed provision of SB 221 may have a major impact on Ohio's economic development efforts. SB 221 creates an opportunity for electric utilities and their business customers to reach "reasonable arrangements" to facilitate Ohio's effectiveness in the global economy, promote job growth, ensure availability of reasonably priced energy, encourage energy efficiency, and provide incentives to develop technologies that address environmental mandates.

Under this provision, electric utility and mercantile customers may file an application for Public Utilities Commission of Ohio (PUCO) approval of an economic development arrangement – the PUCO's version of an economic development incentive. Rules adopted by the PUCO in September 2008 outline which mercantile customers may qualify for this incentive. Several economic development arrangements have been approved by the PUCO thus far.[10] The benefits of the incentives have ranged from $30 million to $60 million just in the first three years of the deals.

OHIO ELECTRIC RATE INCENTIVE OPTIONS
Job Creation
Job Retention
Energy Efficiency
Unique Arrangements

Job Creation

An Ohio electric rate incentive is available to non-retail projects that create 25 full-time jobs over three years with an annual average wage that is 150 percent of the federal minimum wage. In addition, participating companies must demonstrate economic viability and must identify any other local, state, or federal tax incentives being relied upon. Participating utility customers may also identify any secondary benefits of the project and must agree to maintain operations for the duration of the economic development arrangement.

Job Retention

In addition to fostering job creation, an economic arrangement may be granted to retain utility customers likely to cease or reduce operations or relocate them out of state. Many of the standards for retention projects are the same as for economic expansion projects, including the requirement that the project not involve retail activities and that at least 25 jobs be in doubt. Retention projects also require that the customer have an average billing load of at least 250 kilowatts and that the cost of electricity be identified as a major factor in the decision to cease, reduce, or relocate operations.

Energy Efficiency

Energy efficiency arrangements can also be proposed to provide an incentive for developing energy efficient production facilities that create 10 full-time jobs over three years and meet the same criteria as economic expansion arrangements. An energy efficient production facility includes projects that install energy saving products that increase the ratio of energy end-use services (heat, light and drive power) derived from a device or processes as compared to commonly installed energy services. In addition, projects qualify as energy efficient arrangements where any customer manufactures, assembles or distributes products that are used in the production of clean, renewable energy.

Unique Arrangements

Finally, the PUCO proposed rules permit utilities and companies to submit applications for unique arrangements under SB 221. These matters do not require job creation, threats of closure/relocation or energy efficiency but require the filing party to bear the burden of proof.

The PUCO adopted guidelines for how the level of incentives may be judged for all the reasonable arrangements, including:

- demand discounts;
- percentages of total bills or portions of bills;
- direct contributions;
- reflections of cost savings to electric utility;
- shared savings; and
- a combination of all the above.

One of the most important aspects of the PUCO's proposed reasonable arrangement rules is the ability for electric utilities to apply to recover some of the difference between the regular rate schedule and any economic development schedule, energy efficiency schedule, or unique arrangement. In short, the investors for the electric companies will not pay for the savings gained by companies awarded an electric rate incentive. The electric companies other customers will foot the bill for the costs from this PUCO program. This SB 221 legislative mandate is justified by the fact that growing or struggling companies need the economic help of Ohio utilities, rate payers, and state government.

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The PUCO's economic development arrangements give regulators the ability to hold a hearing to review applications for economic arrangements and to keep confidential any customer information provided under the application. Approved arrangements must be posted publicly, are subject to utility customer reporting requirements, and may be revised or modified by the PUCO.

These utility arrangements should have a positive impact on the retention and expansion of manufacturing and other jobs in states like Ohio. The rules governing the arrangements are, in many instances, modeled after Ohio's highly successful Ohio Job Creation Tax Credit and combined with electric load requirements for retention and relocation projects.

The utility arrangements require much less in the way of job creation or retention than Ohio's Job Retention Tax Credit – which is limited to projects involving 1000 or more jobs. In contrast, unique arrangements do not discuss jobs at all, energy efficiency arrangements require just 10 jobs, and economic development arrangements require just 25 jobs. Overall, the PUCO's requirements for economic incentives are lower than those of the Ohio Department of Development, provide no restriction by geographic location on any of the programs, and even permit retail projects and low electric load projects in most likely limited circumstances.

Although the PUCO's standards will be easier to meet, it is not clear that the program process will facilitate successful deal making. The PUCO proposed an important confidentiality requirement, but the requirements for legal affidavits and the possibility of public hearings may create challenges for corporate site location projects on a fast track. Only time will tell if these programs will be evaluated and administered in a manner that is timely and efficient enough to appeal to national corporate site location lawyers, consultants, and Ohio companies in need.

SB 221 also encourages electric utilities to include a financial commitment for economic development in their rate filings but many of those economic development commitments fell by the wayside during the rate case negotiations with Ohio's four major electric utilities.

No doubt as a result of legislative compromise, Ohio electric utilities can choose either traditional regulation or the marketplace. Of the four investor owned electric utilities in Ohio, only First Energy has chosen the marketplace. However, this hybrid approach makes Ohio an innovator to determine if a hybrid approach can bring the best of both worlds- creation of a competitive electric marketplace or use of a regulatory model that has worked for nearly 100 years.

WHAT DISTINGUISHES OHIO?

Policy makers in Ohio may have created a unique approach to bring the electric industry back in as leaders in our economic revival. The Ohio approach is distinguishable in several ways.

Hybrid Regulation

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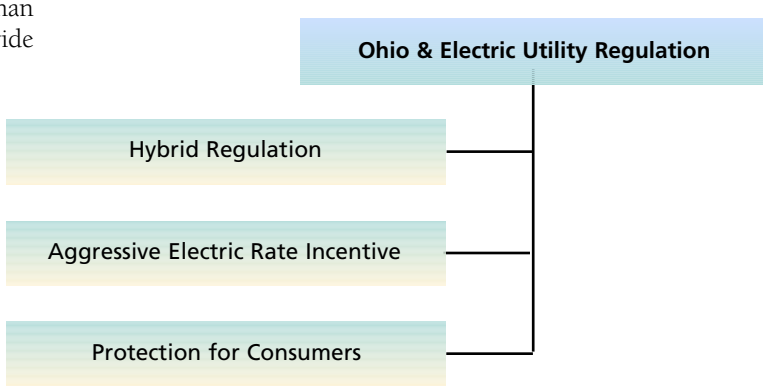


Aggressive Electric Rate Incentives

Ohio threw in the "kitchen sink" when it created its electric rate incentive program. While time will tell if the regulatory process permits its widespread application, the Ohio electric rate incentive program contains no geographic restriction, and creates specific programs for job creation, job retention and alternative energy but also creates a catch-all program that appears to potentially have no restrictions. Struggling industrial states may look to Ohio's electric rate incentive program as a model that can serve as a major strategy for economic recovery.

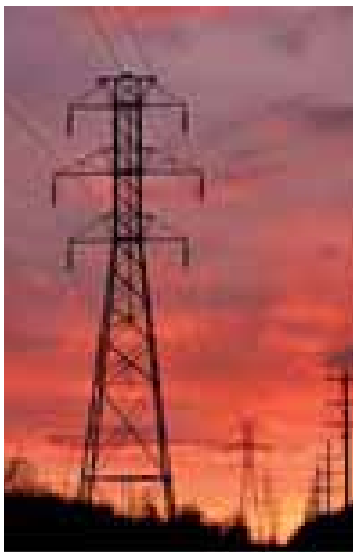
Protection for Consumers

The Ohio electric regulatory program also creates built in protections for consumers. While electric costs from electric rate incentives will be spread across the rate base, the process for awarding these incentives operates through normal PUCO regulatory procedures. This process will rarely move projects through as quickly as economic developers want but it does permit the public and other companies to participate in the administrative review process of the PUCO. The handful of

deals thus far approved in Ohio has been aggressively debated by representatives of residential consumers as well as competitor companies.

THE CASE FOR UTILITY INVOLVEMENT IN ECONOMIC DEVELOPMENT

Great thinking regarding the best electric regulatory framework and electric rate incentive programs falls by the wayside unless the electric utilities themselves can be convinced it makes economic sense for them to aggressively participate in America's economic revival. Whether from a regulated or deregulated state and both from a business and a regulatory incentive standpoint, utilities benefit from substantial engagement with economic development. If a utility operates under a traditional rate-of-return monopoly framework, the benefits of economic development are readily apparent: economic development equals marketing and sales.



Power companies build relationships with manufacturers looking to expand operations in the power companies' service territory. By helping manufacturers with such expansions, power companies sell more power. A competitively deregulated power market, on the other hand, somewhat dampens incentives for utility involvement in economic development but the overall health of the service territory's economy impacts the distribution market. A hybrid market – one that has partial deregulation – offers a mix of opportunities and risks.

For a utility to devote substantial resources to economic development, it must have a strong business case for investment. In a competitive world, contributions for the sake of community relations and brand promotion are generally small in scale and scope. The business case for utilities to make substantial investments in economic development makes sense for the national economy and the electric utility. Consider these factors:

1. Credit Markets Are Looking for Direction from Utilities.

An October 1, 2008, *Wall Street Journal* headline says it all:

> **Turmoil in Credit Markets Sends Jolt to Utility Sector**
>
> The chaos of the financial sector affects all sectors of public finance and private investments. Utilities have not been spared this pain. The capital-starved economy has forced many utilities to delay new borrowing or, alternatively, to devise new and more costly methods of raising funds. Historically, utilities have been a safe haven for stock market investments. Deregulation and other factors are now creating momentary volatility. Ohio utilities would benefit from sending a message to Wall Street that conveys their aggressive plan to market for new customers and redevelop the territories they serve with billions in capital investment and employees.

2. Electric Rate Incentives Can Create Win-Wins for Utilities and Their Customers.

Electric rate incentives provide a reduction of a major expense for industrial customers struggling to survive in a global recession. In addition, electric rate incentives also may lock in a major power customer for a long term electric service contract. Companies that close up their shop are not good customers for electric companies in either a regulated or deregulated marketplace. Customers who sign long term power agreements with an electric utility at reduced rates are more likely to not only remain a customer but remain a customer for a longer period of time in any sort of regulatory environment.

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3. State Government Can Create Incentives for Utilities to Lead Economic Development.

States all over the U.S. are starting to create major incentives for utilities to re-engage in economic development. Many electric rate incentive programs offer electric utilities the chance to partner with other industries to foster growth in their service territory and to pass on the expense of the incentives to ratepayers. If properly implemented from a regulatory standpoint and effectively promoted by utilities, these programs could be an important tool for retaining and attracting manufacturers and building research parks and downtown office towers.

In the past, natural gas and electric utility monopolies often competed for customers. Deregulation shifted the intensity of that focus. Electric utilities re-engaged in economic development may renew some of the old market pressures for natural gas utilities, which should give them an incentive to care about economic development.

4. Utilities Are in the Service Business.

Unlike an auto assembly plant, a power utility cannot simply leave a community. Fixed capital investments and myriad government regulations make that option impossible. More importantly, although utilities generate power, up to two-thirds of their business model is centered on providing distribution or retail services to customers in a defined geographic territory.

Utilities are tied to their customers much like lawyers, retailers, hospitals, and accountants are dependent on geographically proximate customers. That geographic tie dictates that business success depends on the economic success of the region. This concept is amplified with power utilities.

The collapse of a manufacturing-based economy has meant lower business revenues, a declining residential base and, consequently, fewer economic opportunities for utilities. Conversely, reinvigoration of a region's economic health – through new-economy jobs such as technology and research – spells growth and development that creates ample opportunities for utilities. In the simplest terms, what's good for the economic health of a region is good for utilities.

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5. Government Cannot Do It Alone.

Successful economic initiatives are led by the private sector but are often the product of a public-private partnership. Private-sector companies, such as utilities, possess the flexibility, independence, and long-term commitment that can be lacking in a political world of term limits, outdated regulatory frameworks, and influential interest groups.

Aggressive leadership from the private sector is a proven catalyst for regional economic success. Research Triangle Park and other successful economic clusters gained strength when private-sector leaders charged ahead with a regional strategy. These leaders leveraged relationships at world class universities, fostered public sector development of essential infrastructure, and otherwise facilitated public sector support and commitment of resources to implement growth strategies.

Struggling industrial states working to transition to the new economy must follow a similar path. To put it simply, these states will not successfully transform into a vibrant information-age economy without private-sector leadership and their utilities are in a prime position to take on this responsibility. Indeed, in a globalized economy, few have the same strategic reach to make a difference.

The manufacturing base of most industrial states has been globalized, leaving it ill-equipped to lead the charge for the new economy because:

- Ownership is residing less and less in those states;
- Companies have typically grown more outside of these states than in; and
- Pressure from competitors matched with technological advances has substantially reduced most companies' community profile, headcount, and overall political strengths.

The new leader in state and regional employment is usually health care institutions. Unfortunately, health care institutions, although large employers, have an intensely complicated public policy agenda. Not only are these institutions large recipients of state funds, government funding of health care constitutes 46 percent of America's health care spending but, with millions left uninsured, health care institutions often have higher policy priorities than economic development and are often stuck in battles among hospitals, insurance health plans, and doctors. In many cases, their political priority will continue to be directing government funding through Medicaid and Medicare rather than spurring economic development.

Retailers, like manufacturers, have been completely changed by the global marketplace, and few of these companies possess the reach or incentive to commit to long-term regional economic development. In fact, most retailers' business strategies involve moving from challenged economic geographies into greener economic pastures. Financial service companies care deeply about regional economies. However, the current financial crisis has focused the industry on short-term survival rather than long-term investment.

So what industry can lead the private-sector economic development charge? Power utilities are it. Economic development cannot happen without affordable and reliable power provided by utility companies. Utilities also have expansive property databases and an ability and reputation for handling economic leads in a confidential nature. Other industry sectors either lack incentives or are disabled by the current economy. Utilities must become economic leaders.

CONCLUSION

The business case for utility economic development leadership is clear. For better or worse, power utilities are in the service business in specific and defined geographic markets. Government alone is incapable of redeveloping struggling regions, and the utility industry is uniquely positioned to lead a private sector economic development initiative. State law and regulations in states such as Ohio create substantial incentives for utilities to re-engage in economic development and can serve as a national model. Finally, states such as Ohio are a market worthy and capable of economic rejuvenation. Private-sector leadership and commitment from the utility industry can start that rejuvenation now.

FOOTNOTES

1 See http://www.electricitybid.com/electricity/index.php/2008/05/05/list-of-electricity-deregulated-states-in-the-usa/

2 See http://www.ucda.net/utilities.html

3 See http://www.bge.com/vcmfiles/BGE/Files/Rates%20and%20Tariffs/Rates%20and%20Tariffs%20Electric/RiderIndex%20-%20All%20Files/Rdr_15.pdf

4 See http://www.njcleanenergy.com/

5 See http://www.duke-energy.com/indiana-large-business/energy-efficiency/incentives-assessments.asp

6 See http://www.nyc.gov/html/sbs/nycbiz/html/incentives/relocation_new.shtml

7 See http://www.cwlp.com/electric_division/electricdiv.htm

8 See http://www.legislature.state.oh.us/BillText123/123_SB_3_10_N.htm

9 See http://www.legislature.state.oh.us/bills.cfm?ID=127_SB_221

10 See http://www.puco.ohio.gov/PUCO/Rules/Rule.cfm?id=8602.