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## 2011 Innovations Awards Application

**DEADLINE: MARCH 28, 2011**

ID # (assigned by CSG): 2011- \_\_\_\_\_

**Please provide the following information, adding space as necessary:**

State: New York State

Assign Program Category (applicant): Infrastructure and Economic Development

1. Program Name – Environmental Investment Program: Sustainable Product and Technology Development/Implementation Track
2. Administering Agency – Empire State Development
3. Contact Person (Name and Title) – Laura Magee, Public Affairs Specialist
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8. Web site Address – [www.esd.ny.gov](http://www.esd.ny.gov) and [www.NYfirst.NY.gov](http://www.NYfirst.NY.gov)
9. Please provide a two-sentence description of the program.  
The Environmental Investment Program (EIP) helps businesses capture the economic benefits associated with pollution prevention, waste reduction, re-use and recycling through capital funding, R&D support and operating assistance to not-for-profits. The new sustainable product and technology development track—in-line with the global market shift toward environmentally-preferable products and services—supports New York State companies with the creation of new or reformulated products and industrial process technologies that enhance environmental sustainability in a measurable way compared to conventional products or processes currently in use.
10. How long has this program been operational? Note: the program must be between 9 months and 5 years old on March 28, 2011 to be considered.  
The sustainable product and technology track was first added to the Environmental Investment Program in August 2008. EIP itself began in in 1994.
11. Why was the program created? What problem[s] or issue[s] was it designed to address?  
This new investment area allows ESD to use EIP to assist New York State companies when they *make and sell* sustainable products. Up until the addition of this new investment area, all EIP investments had to create environmental improvement *at the site where the investment occurred*. A company could, for example, install equipment to reuse water or to recycle more paper and the environmental improvement from the project would happen right there at the site. ESD added the sustainable product and process technology investment area to help New York companies manufacture and sell products whose environmental impact occurs not at their own site but at their customers' sites throughout the world. New York State companies increasingly recognize that one excellent way to stay competitive in today's marketplace is to sell products and technologies that are environmentally preferable to conventional products or processes. This new investment area allowed New York State to use EIP to assist with the investments needed to sell those products.
12. Describe the specific activities and operations of the program in chronological order.

- Applicants must contact an EIP project manager to determine project eligibility and competitiveness. If the project is eligible and is deemed to be competitive, an application is prepared.
  - An application includes a project description, an explanation of the need driving the project, a budget, historical financial information and information on the cash flow expected from the project. For capital projects, businesses must submit applications through a not-for-profit, IDA, or municipality that will hold title to the supported assets.
  - Applications are accepted on an ongoing basis, and are reviewed monthly. Awards are evaluated based on competitiveness with EIP investment benchmarks for recycling and/or pollution prevention outcomes; the applicant's ability to implement the project; the amount of private investment and cash match. An analysis of cash flows from the project helps determine the payback of the project with and without state assistance and the state's potential return on investment from the project. The analysis also helps determine the level of need for the state's involvement in the project
  - Projects must produce quantifiable results in pollution prevention, waste reduction, reuse or recycling. Results are measured as tons per year of solid or hazardous wastes prevented, reduced, recycled or reused; or millions of gallons per year of water conserved or recycled; or tons per year of prevented air emissions. Projects must also track economic benefits to businesses and the state, including reduced waste management costs and regulatory fees, increased revenue from the sale of new and greener products and jobs created or retained.
13. Why is the program a new and creative approach or method? The EIP approach to engendering environmental improvement in New York State is creative because EIP operates under the auspices of the State's economic development agency, and not the Department of Environmental Conservation. As a business development agency, ESD and its personnel present assistance to help drive new and innovative investment that an environmental regulatory agency might not. Furthermore, ESD staff is part of a larger network of economic development practitioners that can provide far reaching assistance, from technical advice on markets and marketplaces to financing options and opportunities and much more. The addition of the sustainable products and process technologies investment area in 2008 allowed ESD to help NYS companies gain an edge in the global economy by developing and selling sustainable products and technologies to their customers.
  14. What were the program's start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.) Existing ESD staff and resources were used for the implementation of this new track.
  15. What are the program's annual operational costs? Ten ESD staff implement EIP statewide (combined salaries of approximately \$840,000 per year).
  16. How is the program funded? Since 1994, EIP has received annual appropriations from the State's Environmental Protection Fund. The amount appropriated has varied. It has been as high as \$8 million and as low as \$1 million. EPF appropriations are used only for EIP awards to businesses. They do not support program staff or other operational costs.
  17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number. The Environmental Investment Program evolved over time via a series of legislative directives in New York State. Ongoing funding from a dedicated source, the Environmental Protection Fund, occurred with passage of the "Environmental Protection Act" (title 9 of article 54 of New York State Environmental Conservation Law) in 1993. No new legislation, executive orders or regulations were needed to add sustainable products and process technologies as an EIP investment area in 2008.
  18. What equipment, technology and software are used to operate and administer this program? The EIP grant administrator maintains a database of all EIP projects awarded since 1994. Staff views this as the EIP "investment portfolio." It contains information pertaining to the amount awarded, the amount of private sector funds leveraged as a result and a detailed list of the results created, in tons diverted from disposal as well as economic benefit generated in the state of New York, from the investment. The outcomes of potential projects (in tons and dollars) are compared to those already in the database as staff strives to improve the state's "return on investment" from EIP projects.
  19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address. The Environmental Investment Program originated at Empire State Development and is unique in that no other state operates such a robust investment program directed solely at helping the state's businesses improve the environment and their bottom line. The idea of adding a sustainable products and process technologies investment area was originated by program

staff. No single ESD staff person would claim to be the sole innovator. The program has always been and continues to operate as a team effort.

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ? Yes, several other states now have recycling market development programs.. However, ESD is not aware of any state that has extended its focus beyond recycling to the development of sustainable technologies. Examples from some of the better-known programs: California's CalRecycle agency has one of the best-funded recycling market development programs in the country, but it has not extended its reach to sustainable product development; the Minnesota Pollution Control Agency provides guidance to companies seeking to implement sustainable practices but isn't offering financial assistance to companies to develop sustainable technologies; and the South Carolina Department of Commerce offers assistance to recycling companies but does not offer assistance in sustainable practices that go beyond recycling.

21. Has the program been fully implemented? If NO, what actions remain to be taken? Yes and capital, technical assistance and R&D grants continue to be awarded.

22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

ESD has already seen success employing the new sustainable product and process technology investment area to assist New York State companies with bringing sustainable products/processes to market. One tangible example of the program's success is American Aerogel Corporation in Rochester, New York. The company was already selling an aerogel-based insulation product for use in insulated shippers carrying temperature sensitive biopharmaceutical products. They received an EIP research award of \$186,410 in October 2010 to test a new insulation product for use in refrigerated trailer trucks. The new vacuum insulation panels have a higher R-value and thinner walls than conventional refrigerated truck insulation. Their use would enable refrigerated trucks to back-haul standard pallet loads and double their trucking capacity per fuel/mile. Use of the panels would also reduce the volume of end-of-life solid waste to about 25 percent of current volumes. EIP support will allow American Aerogel to verify the characteristics of the new product so it can be brought to market. Another company to take advantage of the EIP sustainable product and process technology investment area is Microceramics Inc. in Elmira, NY. Microceramics has developed a proprietary non-polluting technology as an alternative to the conventional method of recycling tungsten from spent drill and mining bits. The conventional method relies on the use and disposal of nitric acid, sodium hydroxide, ammonia and organic amines and is very energy intensive. Microceramics' approach uses an electrochemical process in an electrolytic cell. It is far less chemically and energy intensive and far less costly than the conventional means of tungsten recycling. Microceramics received an EIP capital award of \$50,000 in February 2011 to support an investment in the new sustainable technology. The company was also investigating the establishment of this operation in Towanda, Pennsylvania and chose New York State because of the EIP award. The above provides examples of the program's effectiveness in engendering investment in sustainable technology in New York State. The program's effectiveness is limited by the number of staff available to implement it and occasionally by slow-downs related to NYS budgetary issues.

23. How has the program grown and/or changed since its inception? The new sustainable products and process technologies investment area has not changed since its introduction in 2008.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program? ESD's biggest obstacle to operating the program successfully is a lack of adequate staff. EIP is a very popular, successful program. The new sustainable product and process technology investment area is proving to be a useful tool for NYS companies seeking a competitive edge by reducing the environmental impact of their products and services. However, ESD staff can implement only a limited number of projects per year.

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## 2011 Innovations Awards Application Program Categories and Subcategories

Use these as guidelines to determine the appropriate Program Category for your state's submission and list that program category on page one of this application. Choose only one.

### *Infrastructure and Economic Development*

- Business/Commerce
- Economic Development
- Transportation

### *Government Operations and Technology*

- Administration
- Elections
- Information Systems
- Public Information
- Revenue
- Telecommunications

### *Health & Human Services*

- Aging
- Children & Families
- Health Services
- Housing
- Human Services

### *Human Resources/Education*

- Education
- Labor
- Management
- Personnel
- Training and Development
- Workforce Development

### *Natural Resources*

- Agriculture
- Energy
- Environment
- Environmental Protection
- Natural Resources
- Parks & Recreation
- Water Resources

### *Public Safety/Corrections*

- Corrections
- Courts
- Criminal Justice
- Drugs
- Emergency Management
- Public Safety

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