


A light gray silhouette of the state of Ohio is centered in the background. It contains several small, white, semi-transparent circles scattered across its surface.

Best Practices in Energy Efficiency & Conservation and Financing Efficiency Projects through Grant Funding

Anthony Sutor – Industrial Efficiency Lead, Ohio Energy Office

A solid red curved shape at the bottom of the slide, resembling a stylized horizon or a decorative footer element.

- **Ohio at a glance**
 - **State Information**
 - 2007 Population (Million) 11.52006
 - GDP (Billion) \$461.3
 - Rank 7
 - **Energy Statistics**
 - Total Energy Consumption 2005 (Trillion Btu) 4,081.6
 - Total Industrial Energy Consumption 2005 (Trillion Btu) 1,375.0
 - Total Industrial Energy Consumption Rank 4
- 

Agenda

- Introduction Ohio Energy Office Industrial Programs
- Ohio Energy Office Energy Efficiency Program for Manufacturers
- Development of Sustainable Energy Management Program
- Financing Energy Efficiency Projects
 - Existing OEO Programs
 - American Recovery and Reinvestment Act (ARRA-stimulus funding)
 - Third Frontier
 - Ohio Air Quality Development Authority
 - Industrial bonds
 - Ohio Coal Office
 - Advanced Energy Fund

Business & Industry Programs

- Industries of the Future
- Motor Challenge
- Integrated Assessments
 - ESAs
 - PWAs
- Energy Efficiency for Manufacturers
- Distributed Energy-self generation
- Bio Mass/bio waste



What Do We Know....

OMA 2005 Manager's Energy Impact Survey

- Energy costs are on average 7.1 % of operating budget – most often <10%
- Over a quarter of the OMA members said current costs and projected energy cost increases could result in production or employment decreases
- About 70% said they have energy conservation initiatives in place
- About 47% said they have procurement initiatives
- However, only 45% said that the energy conservation program met budget expectations

Ohio Department of Development Energy Efficiency Program for Manufacturers

- OEO Energy Management Program-A Three Phase Approach

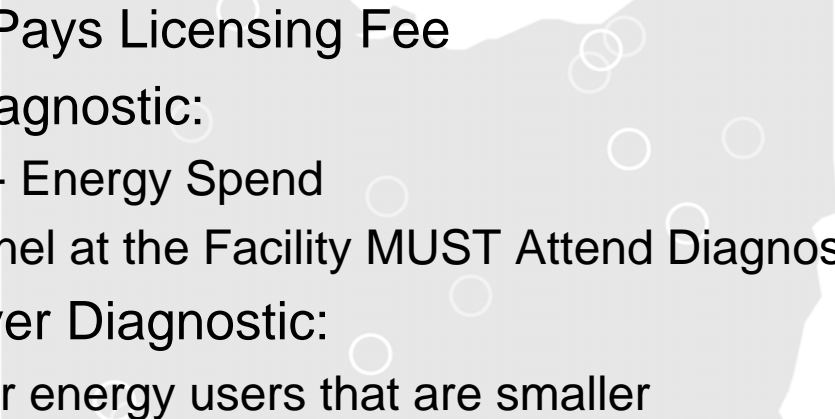


Three-Phased Program Approach

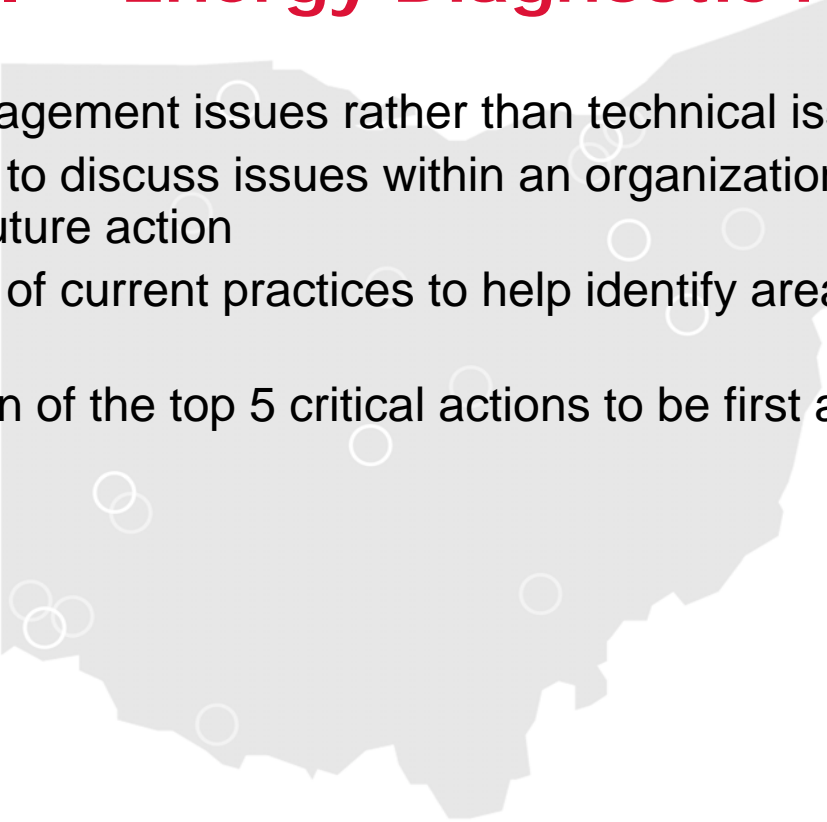
- Phase I
 - One-2-Five Diagnostic
- Phase II
 - Planning & Technical Audit
- Phase III
 - Project Implementation



Customer Selection Process

- State of Ohio Pays Licensing Fee
 - One-2-Five Diagnostic:
 - \$350K/yr +/- Energy Spend
 - Key Personnel at the Facility MUST Attend Diagnostic Session
 - Energy Achiever Diagnostic:
 - Designed for energy users that are smaller
- 

Phase I – Energy Diagnostic Features

- A focus on management issues rather than technical issues.
 - The opportunity to discuss issues within an organization and gain a consensus on future action
 - A critical review of current practices to help identify areas that require attention
 - The identification of the top 5 critical actions to be first addressed
- 



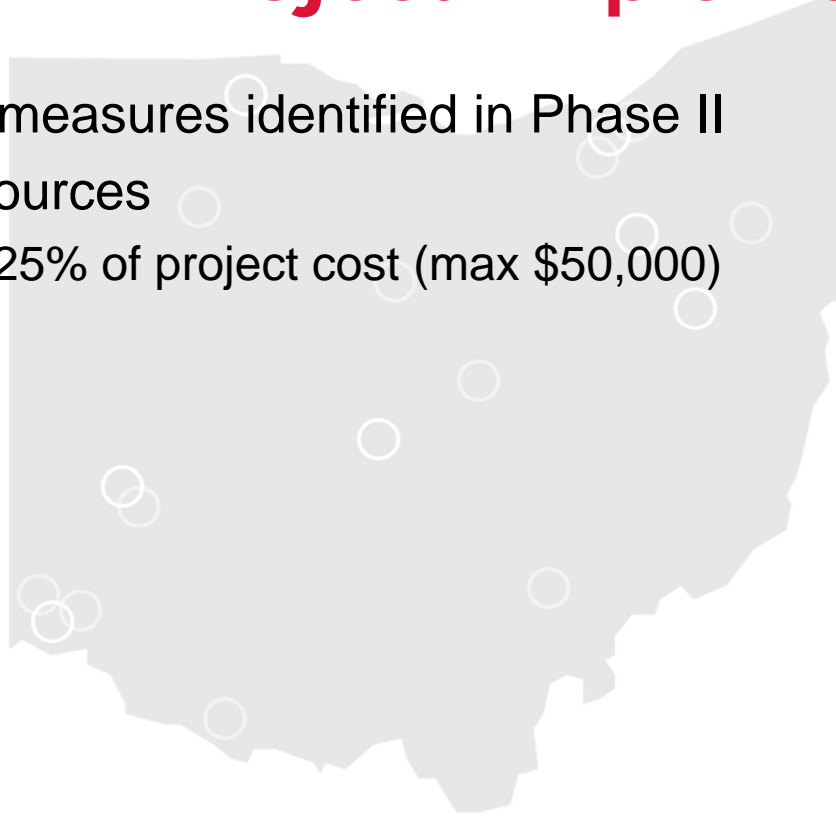
\$
Show Me The MONEY!!
\$

Phase II - Planning and Technical Audit

- **ODOD Follow-up Services Incentives Program**
 - **Planning Services**
 - **Develop An Energy Management Plan based upon the Assessment Outcomes**
 - **Identify (from a macro perspective) Major Energy Use and Potential Areas for Opportunity**
 - **ODOD Incentive of Dollar for Dollar Match up to \$7500**
 - **Technical Opportunities Assessment Services**
 - **Develop An In-Depth Assessment of Technical Opportunities Within the Facility**
 - **ODOD Incentive of Dollar for Dollar Match up to \$7500**

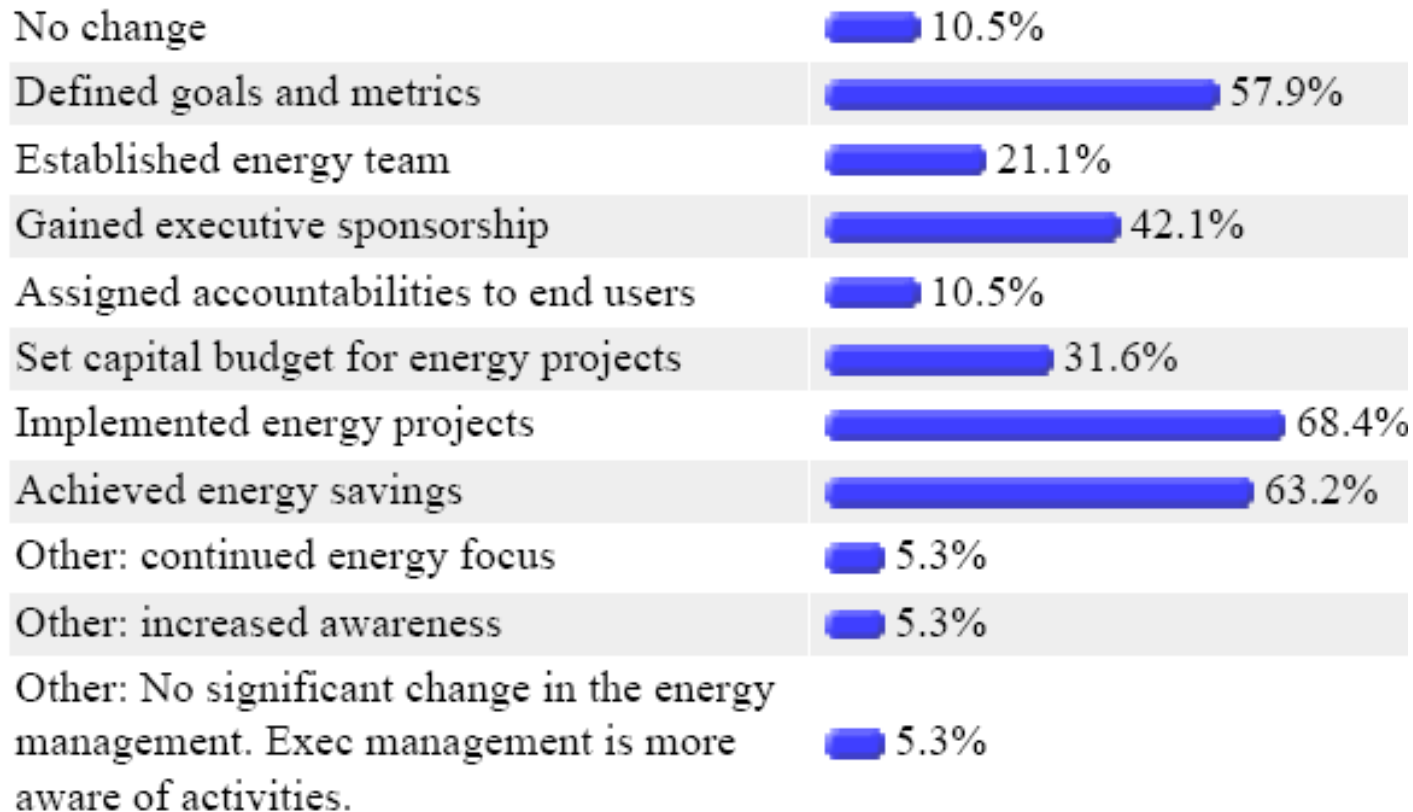
Phase III-Project Implementation

- Installation of measures identified in Phase II
- Financial Resources
 - AEF Grant 25% of project cost (max \$50,000)

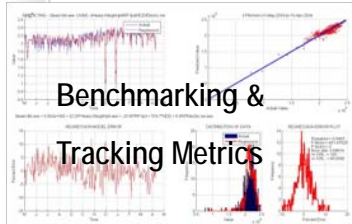


2007 Survey of Program Participants

8. Since participating in the initial management diagnostic, how has your approach to energy management changed? (check all that apply)



Development & Support of Sustainable Energy Conservation Programs for Industries



Compressed Air



Ammonia Refrigeration

Financial Resources & Assistance

OEO Advanced Energy Fund (System Benefits Charge)

ARRA (stimulus)

OCIEE (Ohio Center for Industrial Energy Efficiency)

SEP

SEP Special Projects

Ohio Third Frontier

OAQDA

- Advanced Energy Fund
- Ohio Coal Office
- Industrial Bonds



Financial Resources & Assistance

OEO Advanced Energy Fund (System Benefits Charge)

[Distributed Energy Resources Projects \(NOFA 07-01\)](#)

[Manufacturing Facilities' Energy Efficiency \(NOFA 07-04\)](#)

[Renewable Energy Program Notice of Funding Available \(NOFA 08-09\)](#)

[Residential Wind Energy Incentive \(NOFA 09-02\)](#)

[Solar Thermal Energy Incentive for Residential Housing Units \(NOFA 09-03\)](#)

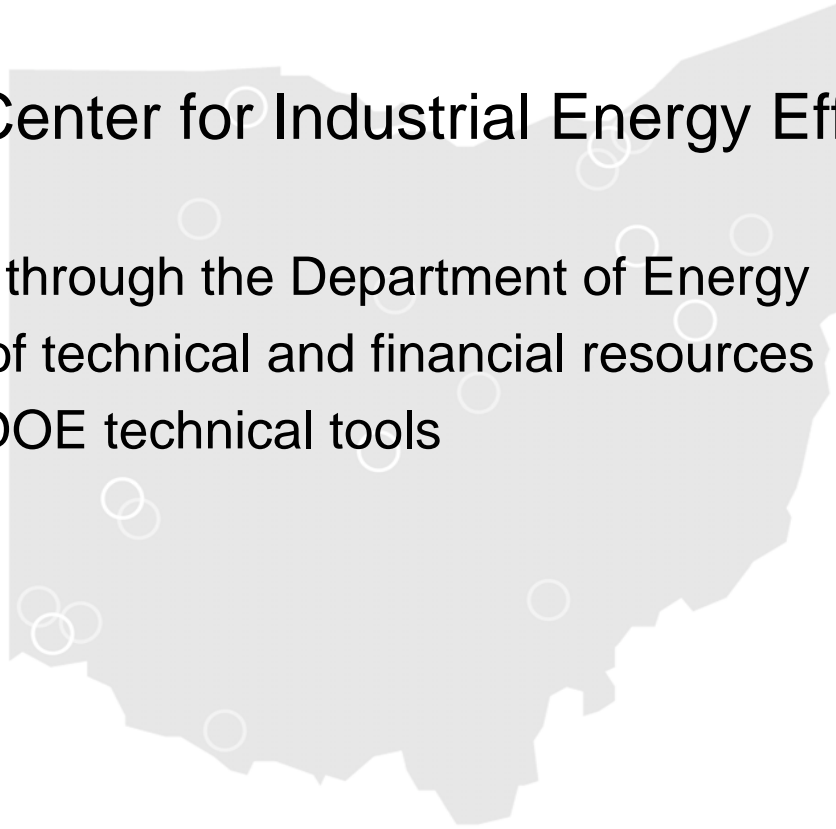
[Residential Solar Photovoltaic Energy Incentive \(NOFA 09-04\)](#)

<http://www.odod.state.oh.us/cdd/oeef/ELFGrant.htm>

Financial Resources & Assistance

OCIEE-Ohio Center for Industrial Energy Efficiency

- Grant funding through the Department of Energy
- Combination of technical and financial resources
- Utilization of DOE technical tools



Financial Resources & Assistance

- American Recovery and Reinvestment Act (ARRA)
- ***Developing Renewable Energy in Ohio*** – **\$35 million** toward increasing renewable energy projects that will propel Ohio forward in the solar, wind and biomass waste industries, and deploying related technologies in combination with fuel cells and energy storage for electricity, heat, biofuel and bioproducts.
- ***Making Efficiency Work*** – **\$8 million** will fund grants to conduct commercial and residential building retrofits in existing and new construction to attain greater energy efficiency.
- ***Targeting Industry Efficiency*** – **\$15 million** will fund grants to the manufacturing companies seeking to improve the sustainability of Ohio industry and build expertise and awareness in industrial carbon management projects.
- ***Banking on New Energy Financing*** – **\$30 million** will transform the energy finance landscape in Ohio by creating an Energy Alliance and bringing more significant funding to energy efficiency and renewable energy projects.
- ***Setting the Stage for Ohio's Carbon Management Strategy*** – **\$500,000** will be deployed to identify industries and businesses seeking to lessen their carbon footprint, assess the economic impacts, and develop scenarios to provide policy guidance for future energy efficient economic development.

Financial Resources & Assistance

- **American Recovery and Reinvestment Act (ARRA)**

Current RFPs

Deploying Renewable Energy: Wind and Solar

- In accordance with American Recovery and Reinvestment Act's State Energy Program, the Ohio Department of Development solicits applications for the installation of solar electric, solar thermal, and wind electric technologies within the State of Ohio. Projects must be completed or deployed within twelve (12) months from the date of grant award.
- To be considered for funding for the **Deploying Renewable Energy: Wind and Solar program**, all interested parties must complete a two-step application process:
- Submit a one-page project summary on the www.recovery.ohio.gov/opportunities/state/ website no later than **5:00 pm** on **September 21, 2009**. Applicants that have already submitted a summary at www.recovery.ohio.gov/opportunities/state/ do not need to submit again.
 - NOTE: On the www.recovery.ohio.gov/opportunities/state/ page, click on "**Submit your Proposal**" in the "How to Apply" box. When filling out the "Project Information" section of the form, choose the Federal Stimulus Program category "**Energy and Environment**" and the subprogram "**State Energy Program**."
- Submit an application to the Ohio Department of Development, Ohio Energy Office no later than **3:00 p.m.** on **September 25, 2009**. The application form is found below:
- [State Energy Program - Solar and Wind Deployment Systems Request For Proposals #09-08](#) (pdf)

Financial Resources & Assistance

- **American Recovery and Reinvestment Act (ARRA)**

Current RFPs

Targeting Industry Efficiency

- **In accordance with American Recovery and Reinvestment Act's State Energy Program, the Ohio Department of Development solicits applications for industrial energy efficiency projects in targeted industries, including but not limited to:**

**Advanced Energy and Environmental Technologies,
Aerospace and Aviation,
Agriculture and Food Processing,
Bio Science and Bio-products
Refrigerated Warehousing/Distribution,
Instruments, Controls and Electronics,
Motor Vehicles and Parts Manufacturing, and
Polymers and Advanced Materials.**

The *Targeting Industry Efficiency* Program will match private investments in projects that will move forward and be deployed within the next twelve (12) months of the grant award.

Financial Resources & Assistance

- **American Recovery and Reinvestment Act (ARRA)**

Current RFPs

Targeting Industry Efficiency

To be considered for funding for the **State Energy Plan – Targeting Industry Efficiency Program**, all interested parties must complete a two-step application process:

- 1) Submit a one-page project summary on the <http://recovery.ohio.gov/opportunities/state/> website no later than **5:00 pm** on **October 12, 2009**. Applicants that have already submitted a summary at <http://recovery.ohio.gov> do not need to submit again.

NOTE: On the <http://recovery.ohio.gov/opportunities/state/> page, click on “**Submit your Proposal**” in the “How to Apply” box. When filling out the “Project Information” section of the form, choose the Federal Stimulus Program category “**Energy and Environment**” and the subprogram “**State Energy Program.**”

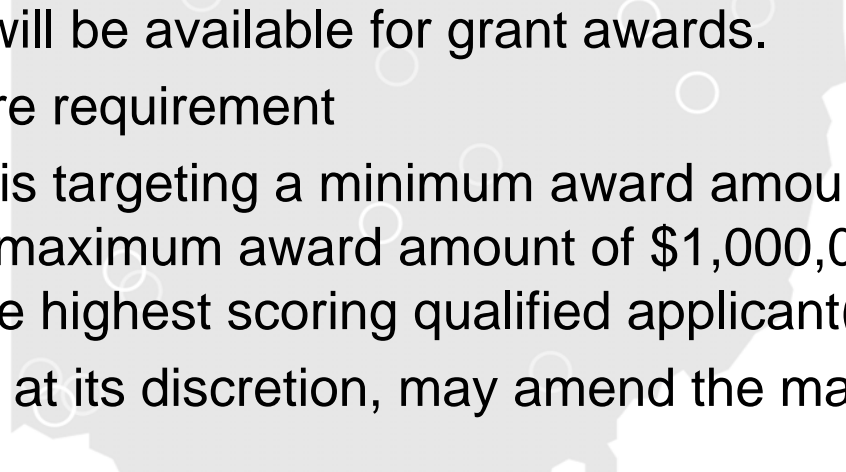
- 2) Submit an application to the Ohio Department of Development, Ohio Energy Office no later than **3:00 p.m.** on **October 16, 2009**. The application form may be found at <http://development.ohio.gov/cdd/oe/GrantsLoans.htm>.

Financial Resources & Assistance

- **American Recovery and Reinvestment Act (ARRA)**

Current RFPs

Targeting Industry Efficiency

- \$10,000,000 will be available for grant awards.
 - 50% cost share requirement
 - Development is targeting a minimum award amount of \$250,000 per project and a maximum award amount of \$1,000,000 per project to be made to the highest scoring qualified applicant(s).
 - Development, at its discretion, may amend the maximum award amount.
- 

Financial Resources & Assistance

Energy Efficiency and Conservation Block Grants

- **The Energy Efficiency and Conservation Block Grant program is one of several energy-related programs receiving funding through American Recovery and Reinvestment Act. A total of \$84,183,300 is available to Ohio and includes \$59,203,700 that is available through direct allocation from the federal government to the ten largest counties and to the thirty-three largest cities.**
- **The remaining amount of \$24,979,600 is available to the Ohio Department of Development. On June 23, 2009, the State of Ohio filed its proposal for use of the \$24.9 million. The plan is being reviewed by the United States Department of Energy, which must respond within 120 days of filing.**

Financial Resources & Assistance

ENERGY STAR Rebate Program

- **Through the American Recovery and Reinvestment Act, the ENERGY STAR Rebate Program is available to provide residential consumers with rebates to buy energy-efficient Energy Star products to replace old appliances and help lower energy bills. The State of Ohio is eligible to receive \$11,020,370, and the Ohio Department of Development, in coordination with other state agencies and stakeholders, is developing a proposal to administer the rebates to Ohio consumers. The State of Ohio must file a full proposal by October 15, 2009.**

Financial Resources & Assistance

Ohio Air Quality Development Authority Advanced Energy Fund

Available Funding

- The \$150 million advanced energy money (over three years) seeks to increase the development, production and use of advanced energy technologies in the state, and is divided in the following manner:
- \$66 million for clean coal technology projects administered through OAQDA's Ohio Coal Development Office (OCDO) (reviewed by the Technical Advisory Committee and approved by OAQDA); and
- \$84 million for non-coal-related projects in three \$28 million annual appropriations administered by OAQDA (reviewed by the Development Finance Advisory Council, approved by the OAQDA and brought before Controlling Board for final approval).

Ranges of Awards

- As a general guideline, awards will range from approximately \$50,000 to \$2 million, based on size and scope and on jobs, investments and other impacts and may be considered for higher awards if outstanding potential value is demonstrated.

http://ohioairquality.org/advanced_energy_program/program_details.asp

Financial Resources & Assistance

Ohio Third Frontier Fund

- **created in 2002 within the Department of Development**
- **10-year initial life and a bipartisan commitment of \$1.6 billion**
- **expands the state's high-tech research capabilities that are designed to accelerate the pace of commercialization within Ohio**
- **focused investments seek to sustain the development of new, innovative products**
- **addresses technical and cost barriers hindering market adoption.**

Financial Resources & Assistance

Ohio Third Frontier Fund

The Ohio Third Frontier supports a comprehensive portfolio of program activities

- The following programs will be offered by the Ohio Third Frontier in Fiscal Year 2010:
- **Research and Commercialization**
 - Wright Projects
 - Research and Development Center Attraction - New
- **Entrepreneurial**
 - Entrepreneurial Signature Program Success and Pre-seed Follow-on Funds - New
- **Cluster Development**
 - Fuel Cell Program
 - Photovoltaic Program - New
 - Advanced Energy Program
 - Medical Imaging Program - New
 - Biomedical Program - New
 - Advanced Materials Program - New
 - Sensors Program - New
- **Human Capital**
 - Ohio Third Frontier Internship Program

<http://www.thirdfrontier.com/>

Ohio Energy Office

**Your Door into
State Government**

Tony Sutor

77 S. High St., 26th floor

Columbus, OH 43215

(614) 387-2733

Anthony.Sutor@development.ohio.gov

- [www.odod.state.oh.us/
cdd/oe](http://www.odod.state.oh.us/cdd/oe)

