



**OPPORTUNITIES IN AN  
ENERGY BASED ECONOMY  
POLICY AND FUNDING PROGRAMS**

Buchart Horn Energy Seminar, 2009

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- § American Recovery and Reinvestment Act
- § PA Alternative Energy Investment Act

**DEP ARRA Formula Grants**  
**\$145,990,764**

**Clean Diesel**  
Total ARRA Funding: \$1,730,000  
Date Awarded to DEP: 4/17/2009  
ARRA Funding for Planned Projects: \$1,730,000  
Number of Planned Projects: 6

**OETD (Energy)**  
Total ARRA Funding: \$136,544,964

**LUST**  
Total ARRA Funding: \$6,163,000  
Date Awarded to DEP: 7/31/2009  
ARRA Funding for Planned Projects: \$6,137,500 (conceptual)  
Number of Planned Projects: 71

**604 (b)**  
Total ARRA Funding: \$1,552,800  
Date Awarded to DEP: 7/14/2009  
ARRA Funding for Planned Projects: \$1,383,411  
Number of Planned Projects: 22

**EECBG – Conservation Works**  
Total ARRA Funding: \$23,574,800  
Date Awarded to DEP: 9/21/09  
Expected Project Award Date: 10/2009  
Number of Expected Projects: 100

**State Energy Program (SEP)**  
Total ARRA Funding: \$99,684,000  
1st Tranche: 5/1/2009 - \$9,968,400  
2nd Tranche: 7/20/2009 - \$39,873,600  
Final Award: 10/7/2009 - \$49,842,000

**Appliance Rebate**  
Total ARRA Funding: \$11,944,000  
Date Awarded to DEP: 8/24/2009

**Energy Assurance Planning**  
Total ARRA Funding: \$1,342,164  
Date Awarded to DEP: 8/14/2009

**PEDA 08**  
Total ARRA Funding: \$3,771,000  
Project Award Date: 3/24/2009  
ARRA Funding for Planned Projects: \$3,771,000  
Number of Planned Projects: 5

**PEDA 09**  
Total ARRA Funding: \$10,000,000  
Project Award Date: 8/10/2009  
ARRA Funding for Planned Projects: \$10,000,000  
Number of Planned Projects: 12

**Energy Harvest**  
Total ARRA Funding: \$6,363,881  
Project Award Date: 8/26/2009  
ARRA Funding for Planned Projects: \$4,821,918  
Number of Planned Projects: 11

**Green Building Revolving Loans**  
Total ARRA Funding: \$12,000,000  
Expected Program Award Date: 11/2009

**Geothermal Loans**  
Total ARRA Funding: \$14,800,000  
Expected Program Award Date: 3/2010

**Green Energy**  
Total ARRA Funding: \$52,437,966.20

**Combined Heat & Power**  
Total ARRA Funding: \$11,313,690.14  
Expected Project Award Date: 11/2009

**Biogas**  
Total ARRA Funding: \$5,000,000  
Expected Project Award Date: 12/2009

**Solar**  
Total ARRA Funding: \$16,324,276.06

**Wind**  
Total ARRA Funding: \$19,800,000  
Expected Project Award Date: 3/2010

Updated: 10/13/2009

**Solar Round 1**  
Total ARRA Funding: \$7,000,000 *estimated*  
Expected Project Award Date: 1/2010

**Solar Round 2**  
Total ARRA Funding: \$9,300,000 *estimated*  
Expected Project Award Date: 5/2010

## AMERICAN RECOVERY AND REINVESTMENT ACT -- 2.12.09

- Weatherization - \$5 Billion
- Energy Efficiency Block Grant \$2.8 Billion
  - Large cities and counties; \$1.96 Billion (approx. \$50 MM to \$65 MM to PA)
  - Local gov's - small counties and municipalities; \$448 Million (approx. \$11 MM to \$14.7 MM to PA)
  - State Energy Programs; \$336 Million ( approx. \$8.7 MM to \$11 MM to PA)
  - **A competitive program \$400 Million.**
- State Energy Program: \$3.1 B
  - (\$99.6 MM to PA)
  - cost share waiver for SEP (20%) is included in the package as is the waiver of the 50% capital cost limitation

## AMERICAN RECOVERY AND REINVESTMENT ACT -- 2.12.09

- \$11 billion for variety of electricity related issues, including R&D, pilot projects and matching funds for smart grid technology, in part intended to fund new power lines and expand existing lines related to renewable energy;
- \$8 billion for loan guarantees for renewable generation and transmission projects beyond the \$11 billion;
- \$6 billion for federal energy efficiency projects at federal buildings;
- \$2.5 billion for a new competitive program at HUD for low income energy efficiency projects;

## AMERICAN RECOVERY AND REINVESTMENT ACT -- 2.12.09

- \$2.4 billion for carbon capture and sequestration demonstration projects;
- \$2 billion for R&D for energy efficiency intended to be awarded competitively between labs, companies and universities;
- \$2 billion for advanced batteries loans and grants to support U.S. manufacturers;
- \$600 million for additional alternative-fueled cars in the Federal fleet;
- \$500 million for energy efficiency manufacturing and demonstration projects;

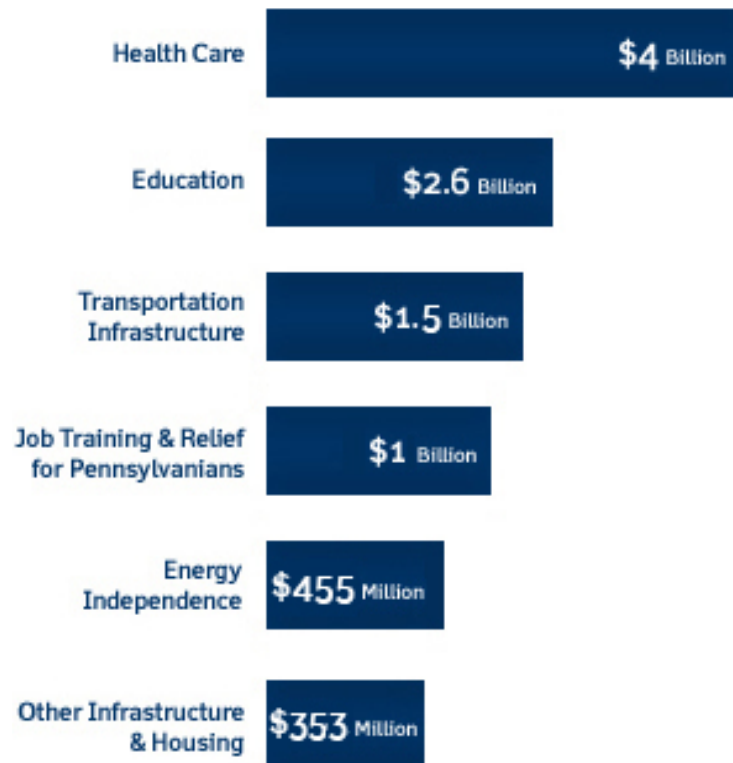


## AMERICAN RECOVERY AND REINVESTMENT ACT -- 2.12.09

- \$400 million to state and local governments to purchase alternative fueled vehicles and reduce carbon emissions;
- \$350 million to DOD for research into using renewables to power weapons systems and bases;
- \$300 million in grants and loans to state and local governments for projects that reduce diesel emissions, including technologies to retrofit school bus emission exhaust systems, the replacement of engines and vehicles and the establishment of anti-idling programs; and
- \$200 million in grants to encourage electric vehicle technologies.

[www.recovery.state.pa.us](http://www.recovery.state.pa.us)

## Where Is Your Money Going?





## PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

\$650 Million in Funding Programs  
Administered Through:

- Commonwealth Financing Authority
- Department of Environmental Protection
- Ben Franklin Partners
- Pennsylvania Housing Finance Agency
- Department of Public Welfare
- Department of Revenue

PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

**Programs for Consumers and Small Businesses**

- **\$100 Million for Solar Energy - DEP**
  - Rebates funded through bonds
  - Up to 35% of project costs
- **\$92.5 Million for Consumer Energy Conservation Projects - DEP**
  - A mix of loans, grants and rebates
  - Up to 25% of project costs
- **\$25 Million for High Performance Bldgs - CFA**
  - Standards by DGS in consultation with DEP

PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

## Commonwealth Finance Authority

- **\$80 Million for Solar Energy Projects**
  - May be loans or grants
  - Can include incentives for manufacturers
  - No restriction on who can apply
- **\$25 Million for Geothermal and Wind**
  - May be loans or grants
  - No restriction on who can apply
  - For wind, may include manufacturing



## PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

### Other Programs

- **\$40 Million to the Ben Franklin Partners** to Support Early-Stage Activities
- **\$10 Million Annually over 4 Years to DPW** to Supplement LIHEAP
- **\$5 Million to PHFA** for Home Efficiency Loan Fund for Income-Eligible Households

PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

## Other Programs

- **\$25 Million for Pollution Control Equipment**
  - For coal-fired power plants with less than 500 MW capacity
- **\$2.5 Million for Data Center Virtualization Projects for Individuals and Small Businesses**

## PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

### Alternative Energy Production Tax Credits

- **Up to 15% of Total Costs of Development, Equipment and Construction, up to \$1 Million/Year/Taxpayer**
- **Taxpayer Includes a Person or Entity Subject to:**
  - Personal income tax
  - Corporate net income tax
  - Capital stock and franchise tax
- **Total Credits Limited to:**
  - \$5 million for each of first 4 years
  - \$8 million in 5th year
  - \$10 million in 6th and 7th years
  - \$2 million the 8th year

PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008

## “Clean Energy” Projects

- Replaces/supplements existing energy system w/ alternative energy system.
- Installation of alternative energy systems in existing or new buildings
- “Facilitates” construction of high performance buildings or site preparation for the same
- Equipment improving energy efficiency: heating, cooling, solar thermal.
- ESCO projects.

**PENNSYLVANIA ALTERNATIVE ENERGY INVESTMENT ACT -- 2008**

**“Alternative Energy Production” Projects**

- Energy production or distribution from alternative energy sources and clean coal
- Manufacturing facilities producing equipment and components for alternative energy production projects, alternative fuels, and conservation.
- R&D facilities for alternative energy or fuels
- Rail transport for alternative fuels



## **CFA - \$165 MILLION FOR THE FOLLOWING:**

	<b>Loans</b>	<b>Grants</b>
<b>Businesses</b>	<ul style="list-style-type: none"><li>• Clean energy projects</li><li>• Alternative energy production projects</li><li>• Site preparation</li></ul>	<ul style="list-style-type: none"><li>• Alternative energy production projects</li><li>• Site preparation</li></ul>
<b>Non-profit economic development organizations</b>	<ul style="list-style-type: none"><li>• Clean energy projects</li><li>• Alternative energy production projects</li><li>• Site preparation</li></ul>	<ul style="list-style-type: none"><li>• Alternative energy production projects</li><li>• Site preparation</li></ul>
<b>Political subdivisions</b>	<ul style="list-style-type: none"><li>• Clean energy projects</li><li>• Site preparation</li></ul>	<ul style="list-style-type: none"><li>• Clean energy projects</li><li>• Site preparation</li></ul>

[www.dep.state.pa.us/energy](http://www.dep.state.pa.us/energy)

***Breaking News:***

- [Funding Programs](#) - This is a list of the energy and green technology funding programs offered by Pa. DEP and other commonwealth agencies, sorted by eligible candidate. This will make it easy for organizations, individuals, etc. to find out instantly which programs they're eligible for.

## KEY DRIVERS FOR EFFICIENCY

- High and volatile energy prices
- Evolving national energy auditing standards
- Access to training and education
- Systems that channel the value of EE to those that create it – net metering, smart grid, smart appliances

## CHANGES TO LOOK FOR

- **JOB CREATION**
  - Solar, wind, geothermal industries
    - Manufacturing, Installation, Maintenance
  - Energy auditing
  - Building operating engineers
  - High performance design/construction
  - Code enforcement
- **INCREASING EE STANDARDS**
  - Incentives for high performance
  - “Green” Building Code provisions



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