

# American Recovery and Reinvestment Act

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## State of Indiana State Energy Program Proposal



Indiana's State Energy Program (SEP) strategic plan will focus on the creation and retention of jobs, speed of project completion, positive environmental impact, measurable energy efficiency savings, and statewide energy diversification. Education will also be a critical component of the program's overall objective, as many of these new green projects will require teaching, training, and instruction to aggressively usher in this clean energy transformation to the State. Indiana's SEP investments will assist workers transition from energy intensive, high environmental impact production processes to more energy efficient and environmentally friendly alternatives. In doing so, Indiana is directing our efforts to those individuals most in need and adversely impacted by our current economic environment.

Grants will be awarded competitively. Research and development projects will NOT be considered. Awarded funds included in the comprehensive SEP will be directed to alternative and renewable energy infrastructure that will provide assistance to existing and emerging relevant industries to support their long-term viability. This accomplishes the dual purposes of encouraging economic diversification and promoting domestic security by reducing our dependence on foreign oil. These investments will improve the reliability of electricity and fuel supply, increase energy efficiency, and reduce the negative impacts of energy production on the environment. Our SEP program will leverage the successful existing energy management and distributed generation regional clusters located throughout the state and build upon Indiana's longstanding tradition of scientific innovation in numerous energy sectors.

The SEP in Indiana will build upon our state's existing infrastructure in renewable energy. Indiana's existing alternative energy asset base will enhance our capacity to work toward the Obama Administration's national efficiency and diversification goals of 10 percent of electricity supply from renewable sources by 2012 and 25 percent by 2025. Our SEP mission will be to develop industries and increase the speed to market for renewable energy products that will be necessary to support the supply-chain, pipeline, and infrastructure of the next industrialized green conservation revolution. Utilizing the cleanest and fastest energy sources will help the state's residents and businesses reduce their energy costs and carbon footprint. Ultimately, Indiana will lead the market transformation toward a more environmentally friendly economy by strategically allocating our assets.

Projects that receive Indiana SEP dollars must adhere to the following:

- Cannot apply for equivalent Energy Efficiency and Conservation Block Grant program with the same project
- Ensure energy savings are quantifiable based on applicable metrics
- Identify timeline for zoning approval and National Environmental Policy Act application
- Comply with applicable air-quality permits and approvals
- Reference state and federal credits/incentives necessary to project completion
- Must exhibit the capacity to create net jobs
- Must produce a clean, green, and energy efficient product that serves to ultimately generate clean power, and no flaring gas

U.S. Department of Energy (DOE) has set forth the following as mandatory requirements in each State SEP:

- Establish mandatory lighting efficiency standards for public buildings
- Promote carpools vanpools and public transportation
- Incorporate energy efficiency criteria into procurement procedures

- Implement mandatory thermal efficiency standards for new and renovated buildings, or in states that have delegated such matters to public subdivisions adopt model codes for local governments mandate such measures
- Permit right turns at red traffic lights and left turns from a one-way street onto a one-way street at a red light after stopping
- Ensure effective coordination among various local, state, and federal efficiency, renewable energy and alternative transportation fuel programs within the state

The State of Indiana has already implemented many of these measures and has established an interagency team, lead principally through the Indiana Office of Energy Development (OED), to ensure that Indiana continues to effectively educate state and local policy makers about the critical importance of a coordinated energy efficiency and conservation strategy.

### **Market 1: Additional energy education and workforce modernization**

**Purpose:** Indiana's SEP investments will assist workers' transition from energy intensive, high environmental impact production processes to more energy efficient and environmentally friendly alternatives including the utilization of sustainable energy sources. In doing so, Indiana is directing our efforts to those individuals and regions most in need and adversely impacted by our current economic environment. The State will continue to inform, educate, and train the public about energy efficiency and renewable energy programs including voluntary conservation initiatives through public forums, educational materials, workshops, and other events statewide throughout the year. Additionally, the state will coordinate with private and public sector partners to promote re-employment, career advancement, and job creation/retention in the green economy. Elements of this effort will include:

- Through partnership with community and vocational/technical educational institutions, the State's workforce will be equipped with a thorough skill-set in the green energy sector that will increase these individuals' chances of securing long-term, high salaried employment.
- The State will target at-risk incumbent workers and recently displaced or underemployed workers with employment opportunities in the energy efficiency and energy sustainability fields.
- By matching these new green workers with responsibilities related to energy efficiency and sustainability with aggressive recruitment of producers of green products and technologies these workers will be able to secure long-term high-wage employment.
- Target workforce includes displaced, unemployed, or underemployed individuals who would be eligible for career-based training opportunities to successfully transition away from energy intensive processes in the industrial, commercial, and institutional sectors.
- Over two years, the State will seek training opportunities for displaced, unemployed, and underemployed workers so that they may obtain a basic skill level in energy efficiency, conservation, and sustainability that will help secure work in the new green energy manufacturing, technology, and business sectors.
- Technical, managerial, and other specialized personnel are anticipated to seek additional training in the green energy efficiency and sustainability fields. Training and employment opportunities will be provided to these new green leaders. The experience these green workers will receive from the next generation of sustainable employers will serve to build the State's inventory of green, clean workforce.
- It is anticipated that the State's highly skilled green workforce will give rise to the new era of green employers thus serving as the foundation for the green revolution to take

place at all public and private facilities and homes, ultimately resulting in significant cost savings and reduced carbon footprint.

This SEP Energy Education and Outreach Plan, which complements Indiana's Strategic Energy Plan, will include workshops, conferences, seminars, sponsorships, and materials for education, and earned and paid media purposes. These activities will advance the State's key messages to stakeholders of the importance of converting our dependence on imported energy to renewable forms, improving energy efficiency and conservation efforts to ensure the future security of our State. Each quarter for the next year, six press releases and one editorial piece will be secured prime placement in major publications in various markets.

The State will continue to develop its strong energy efficiency and conservation public relations campaign by utilizing print and television media to promote the Indiana OED as the "go to" experts and resource for energy stories and information. Further, OED will publish a monthly newsletter reporting on the State's advancement of renewable and alternative energy initiatives. The State's strong progress on this front will be communicated regularly through the NEED organization to inform Indiana teachers about the State's energy initiatives. Ultimately, we will increase our outreach numbers through this additional marketing and publicizing of these 25 workshops, seminars and conferences of which State will sponsor ten.

OED has put together a statewide media campaign to serve two purposes. The first purpose is to promote continued and increased energy efficiency and conservation efforts throughout the State. The second purpose is to incorporate the key components of the ARRA stimulus funding, and through this campaign OED will fulfill that requirement, along with providing information that will truly impact Indiana residents in a positive way by helping them reduce their electricity costs. This campaign focuses on educating the residents of the State on the importance of conserving the use of energy both through limiting energy consumption in their daily activities and utilizing energy efficient technologies. The campaign uses a mix of media including outdoor, radio, and a minor amount of print. It will be supported through earned media with events and materials

OED's theme of Small Steps Big Results is to use paid and earned media opportunities to advance programs to reduce electricity, natural gas, propane, transportation fuels and water usage. These strategies will encourage and recruit the target audience to think about their energy use by introducing small and easy to recognize facts and figures such as how many gallons of water does it take when you charge your cellular telephone, replacing a traditional light bulb with a CFL and the significant impact this has on user's monthly energy bills. Viewers, listeners and or readers will always be redirected back to the Energy.In.Gov website.

Participation in training programs will be based on market demand and supported by aggressive outreach to potential participants. Based on historical utilization of state training programs, an allocation of \$10 million for worker training could fund training for up to 5,000 workers. However, utilization for the SEP training program may deviate from historical trends. The SEP training program will cover up to 50% of total eligible training costs and funds will be awarded over a two-year period. Match of state SEP commitment will be provided by corporate and community partners. Participating

workers will include those who are unemployed, underemployed, displaced, and currently employed in Indiana or net new Indiana green jobs.

The Indiana Economic Development Corporation employs a team of field monitors who oversee other State grant training programs. This group performs onsite audits of recipients of training grant dollars to verify proper use of funds and track the outcome of employees participating in the programs (new certifications, transferable skills, etc.). This group will also track the creation and retention of jobs, (in this case "green" or clean-tech jobs) and related capital investments for the project.

The State will create an Indiana Clean-tech online social networking portal to enable the State's alternative and renewable energy employers and job seekers to identify and communicate to one another.

Indiana proposes that approximately \$1 million of this market allocation will go to support and expand OED's efforts. \$9 million of this market allocation will be allocated to establish up to twenty training initiatives that enhance Indiana's core green energy efficiency and sustainability goals and objectives.

**Market 1 Allocation: \$10,000,000**

Job creation and retention (\$92,000 leveraged/granted=1 job per DOE guidance)	Creation and Retention
Number	Up to 5000 created and/or retained
Type	Training in construction and manufacturing trades
Duration (engagement of companies & workers)	Permanent employment
# of workers retrained	Up to 5000 created and/or retained
Duration of Program	Up to 24 months
Green Workers Developed	Up to 5000 created and/or retained
Unemployed Workers Retrained	Up to 5000
Funds leveraged	\$9,000,000

**Market 2: Building energy efficiency**

**Purpose:** This Market of the proposal enhances current SEP efforts to develop and adopt transformative initiatives that promote industrial energy efficiency through the creation of a revolving loan program. Indiana will also continue to provide technical support to the commercial and industrial sectors on energy efficiency issues.

**Commercial and industrial revolving loan fund**

**Eligible Sectors:** Commercial, industrial

**Not Eligible:** Healthcare institutions, schools, facilities w/ residential components (i.e. apartment buildings)

**Purpose:** Encourage utilization of sustainable energy sources and implementation of capital intensive projects that have the potential to reduce energy consumption in the industrial, commercial, and manufacturing sectors.

**Eligible Uses:** Emphasis placed on projects with the potential to create new jobs and effect long-term fossil fuel and petroleum reduction using high efficiency energy rated equipment, alternative technologies, and appliances. Possible uses include re-engineering, redesigning or retooling, weatherizing facilities to provide for more energy efficient lighting, controls and sensors, chillers, furnaces, boilers, heat pumps, building insulation, windows, doors, compressed air, energy management systems/controls, appliances, and other equipment with a demonstrable capacity to reduce reliance on petroleum and fossil fuels. These processes and/or materials must be able to achieve measurable improvements in energy efficiency over the existing state of technology. Direct construction costs are not eligible under this program. Only projects and services that have been previously approved under the National Environmental Policy Act (NEPA) or are otherwise categorically exempt from NEPA will be eligible.

**Use of Funds:** Funds must only be spent toward eligible projects and cannot be used for operating expenses or other aspects of the project that do not create a measurable energy efficiency benefit.

**Award Range:** \$50,000 to \$500,000

**Building Code Training:**

Indiana will work to adopt the 2009 International Residential Code and the 2006 International Building Code, both with Indiana amendments, by estimated adoption dates of February 2010 and June 2010, respectively. An interagency task force will coordinate with applicable service providers to assist Indiana’s businesses with incorporating these standards into their best business practices. The task force’s energy code Initiatives will deploy the corresponding tools to educate commercial and residential professionals on the forthcoming building code modifications. Only projects and services that have been previously approved under NEPA or are otherwise categorically exempt from NEPA will be eligible.

**Market 2 Allocation:** \$2,000,000

Job creation and retention(\$92,000 leveraged/granted=1 job per DOE guidance)	Created
Number	40
Type	Administrative/ Engineering/ Construction
Duration	Up to 24 months
Funds leveraged	\$2,000,000
Number of Buildings Retrofitted	10 per over two years
Square Footage of Buildings Retrofitted	500,000 sq ft
Amount of Projected Energy Savings	\$150,000/year
Awards Given	10 over two years

### Market 3: Vehicle and alternative energy supply chain

**Purpose:** It is the State's intention to send a clear signal to the world that Indiana will build upon our renewable and alternative energy infrastructure. There is an interagency initiative and commitment to make this a reality, which includes the performance metrics, transparency, tracking, reporting, and follow-up analysis. The program would focus on rebates for hybrid, electric, and hydrogen batteries and other components for commercially viable car production and battery storage to end uses of energy storage and smart grid applications. Successful penetration in this market will enhance Indiana's capacity to improve the reliability of sustainable electric fuel supply and develop new energy markets, thereby promoting diversification and reducing the environmental impacts of energy production traditionally associated with imported oil.

By investing in the development and deployment of high efficiency energy production, storage and delivery technologies, including battery technologies, Indiana is building the infrastructure necessary to reduce fossil fuel consumption and the reliance on foreign energy. Industry evidence suggests that on a per user basis, these advanced energy storage technologies have the potential to reduce emissions and/or consumption by up to 70% relative to existing industry standard technology.

The program will also encourage market acceptance of the Smart Grid and alternative energy vehicles using next generation hybrids that decrease reliance on foreign sources of oil while reducing our carbon footprint. This market will provide resource support to an Indiana based "clean-tech" consortium of academic and corporate partners working to improve the integration of commercially available technologies in battery powered vehicles, smart grid technologies, and energy storage technologies.

This market will also build on Indiana's past successes by providing funding for rebates and loans to assist producers and/or purchasers of battery power and energy storage technology products. This support is intended to improve market acceptance of new products utilizing these technologies through showcasing the reliability and usefulness of these products to Hoosiers and addressing current cost differentials relative to incumbent products.

Funds from this market can be used to provide a rebate to a business producing energy storage components for use in battery powered applications. Savings associated with this rebate would provide an additional inducement to investment in battery powered cell pack technologies, which currently are more capital intensive than incumbent technologies. Continued investment in these fields will support the objective of reducing reliance on imported fuels sources and reducing carbon footprint while advancing the commercial viability of these renewable energy products. Only projects or equipment that have been previously approved under NEPA or are otherwise categorically exempt from NEPA will be eligible.

**Eligible Uses:** This program will establish a rebate program to encourage the purchase and use of electric, hydrogen, high-ratio bio-diesel or ethanol, natural gas, and hybrid vehicles. The rebate will be for the lesser of: (i) 50% of the cost of the vehicle and (ii) the cost differential between the alternative energy vehicle or an alternative energy component and its traditional counterparts. If appropriate to increase awareness and use of these technologies, the State, either directly or through its vendor or agent, may also use program funding to cover the cost differential between the selected alternative energy vehicles and its traditional counterparts to incorporate and promote the use and purchase of these vehicles throughout the State.

**Eligible Vehicles or Equipment:** Conservation, energy reduction and efficiency, fossil fuel and petroleum reduction, and replacement in power usage, and commercially viable energy production and storage to end users of smart grid applications.

**Award Amount:** 50% of total project up to \$5,000,000 per project

**Market 3 Allocation:** \$16,500,000

Job creation and retention(\$92,000 leveraged/granted=1 job per DOE guidance)	Created
Number	1,190
Type	Construction and Manufacturing
Duration (permanent)	UP to 24 months
Funds leveraged	\$16,500,000
Greenhouse Gases Reduced (CO2 equivalents)	730,000
Criteria air pollutants reduced (tons)	70,000,000

#### **Market 4: Accelerating consumer and commercial clean energy deployment**

**Purpose:** Indiana will be a leader in the production and creation of clean, green and energy efficient components to effect permanent structural change to the United States' energy sector. This program seeks to accelerate the deployment of clean energy and its market acceptance by offsetting or overcoming cost barriers inhibiting the rapid deployment of in-demand alternative and renewable technologies relating to heat conversion, battery technologies, idling reduction technology, and green manufactured devices, turbines, switches, materials, and parts. By encouraging the immediate deployment of alternative energy products, Indiana will leverage the successful existing energy management and distributed generation regional clusters located throughout the State and build upon Indiana's longstanding tradition of scientific innovation and leadership in numerous energy sectors.

**Eligible uses:** This program will establish a flexible revolving loan program to encourage the purchase or financing of technologies to provide for the rapid deployment of alternative and renewable energy technologies that will serve to promote domestic security by limiting our dependence on foreign oil, reduce carbon footprint, and create new clean means of products, transportation and appliances for use by businesses, academic institutions, public institutions, consumers, or non-profit organizations. Only projects or equipment that have been previously approved under NEPA or are otherwise categorically exempt from NEPA will be eligible. Applications must reduce use of any one, or collectively among all, of the categories of non-renewable energy by at least 20%. The type of energy saved will vary based on the end use of funding. In the event that obtaining additional loan financings may violate or preclude other project financings for a successful applicant, this program would allow a limited amount of loan awards to be converted to a grant award. The State would need to make a dual determination that a conversion would result in the success of the project and best advance Indiana's long-term strategic renewable and alternative energy objectives.

An example of a qualifying project could include a low-interest loan to finance up to 50% of the costs associated with retooling, reengineering, or reequipping to increase production of alternative and renewable energies and products.

**Award Amount:** 50% of total project costs not to exceed \$5,000,000 per project. Total funds awarded as grants may not exceed \$5,000,000.

**Market 4 Allocation:** \$19,500

Job creation and retention(\$92,000 leveraged/granted=1 job per DOE guidance)	Created
Number	1,320
Type	Construction and Manufacturing
Duration	Up to 24 months
Funds leveraged	\$20,000,000
Amount of projected energy savings	Up to 20% energy savings relative to current industry standard depending on energy source replaced
Reduction in electricity demand and consumption (MW), natural gas consumption (mmcf), and gasoline and diesel fuel consumption (gallons)	Up to 20% energy savings relative to current industry standard depending on energy source replaced
Greenhouse Gases Reduced (CO2 equivalents)	1,032,000
Criteria air pollutants reduced (tons)	108,000,000
Number of Loans & Grants Given	10 over two years

**Market 5: Promote the use of green and renewable energy generation facilities, products, and its supply chain for the purpose of reducing greenhouse gases (GHG)**

**Purpose:** Many Indiana alternative and renewable energy companies have an immediate need to engineer and integrate advanced technologies, including meeting constantly evolving performance metrics and impacts of components that contribute to advanced renewable energy technologies and its supply chain. It is anticipated that this program would provide a flexible low-interest loan to meet this need. These programs would support efforts aimed at reducing GHG emissions and other environmental impacts traditionally associated with fossil fuels and encouraging the utilization of green products, materials, parts, and facilities for wind, geothermal, and solar energy. Successful penetration in this market will enhance Indiana’s capacity to improve the reliability of electricity, diversify fuel supply, reduce GHG emissions, and develop renewable energy sources and materials. In the event that obtaining additional loan financings may violate or preclude other project financings for a successful applicant, this program would allow a limited amount of loan awards to be converted to a grant award. The State would need to make a dual determination that a conversion would result in the success of the project and best advance Indiana’s long-term strategic renewable and alternative energy objectives.

**Eligible uses:** Eligible awards could be applied to engineering integration performed in the United States of qualifying products and components. Awards for renewable energy facilities that produce qualifying components or advanced technologies would be applied to fund design tooling and equipment, and include developing processes and material suppliers. As an additional effect, awards would accelerate the commercialization to market of finished products. Eligible costs for facilities that develop qualified components will be NEPA compliant and may include the reequipping of an alternative energy facility.

Eligible projects will utilize energy efficient technologies that will result in a 50% reduction by the end user in at least one non-renewable energy source. An example of a qualifying project could include a low-interest loan to finance up to 50% of the costs associated with wind turbines, blades, or nacelles that would offset development costs for a generation facility. Another potential example would be a grant to offset costs associated with solar film or solar panels that would reduce development costs for a solar generation facility. Only projects or equipment that have been previously approved under NEPA or are otherwise categorically exempt from NEPA will be eligible.

**Award Amount:** 50% of total project cost up to \$5,000,000 per project. Total funds awarded as grants may not exceed \$5,000,000.

**Market 5 Allocation:** \$20,000,000

Job creation and retention(\$92,000 leveraged/granted=1 job per DOE guidance)	Created
Number	1,465
Type	Construction and Manufacturing
Duration	Up to 24 months
Funds leveraged	At least 2:1
Amount of energy generated from other renewable sources (in MW or Btus)	2,925
Greenhouse Gases Reduced (CO2 equivalents )	835,000
Number of Loans & Grants Given	10 over two years

#### State of Indiana SEP Market Allocation Summary

Additional energy education and workforce modernization	\$10,000,000
Building energy efficiency	\$2,000,000
Vehicle and alternative energy supply chain	\$16,500,000
Accelerating consumer and commercial clean energy deployment	\$19,500,000
Green and renewable energy generation facilities, products, and supply chain for the purpose of reducing greenhouse gases	\$20,000,000
Total	\$68,000,000