STATE LEADERSHIP FOR A NEW ENERGY FUTURE: A FOUR-POINT INITIATIVE FOR CLEAN ENERGY & GOOD JOBS

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Please consider this report a living document. The authors would be pleased to consider your suggestions for improving future drafts.

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By visiting our website, **www.apolloalliance.org/stateleadership.cfm**, state policymakers can find an online version of this plan that includes links to model legislation covering key portions of the plan.

STATE LEADERSHIP FOR A NEW ENERGY FUTURE: A FOUR-POINT INITIATIVE FOR CLEAN ENERGY & GOOD JOBS

Introduction

The following plan outlines a comprehensive, four-part strategy for state leadership to promote clean energy and create good jobs. In the absence of strong federal action over the last six years, states have acted as laboratories of democracy, pioneering bold, new solutions to our energy challenges. They have tapped the "can do" spirit of the American people, demonstrating that we can tackle some of the great issues of our time—creating good jobs, energy independence, and curbing global warming pollution—with the right combination of leadership and know-how.

The four initiatives outlined here offer states broad roadmaps on how to address the full gamut of our nation's energy challenges. Many of the ideas here reflect some of the best ideas already tested by state governments. These initiatives can be adopted in whole or piece-by-piece, depending on where a state might be in the process of creating a new energy policy framework.

If these four comprehensive initiatives were adopted as a baseline by every state in the nation, they would go far to reduce our dependence on foreign oil, develop clean homegrown energy resources, reduce energy waste, build more livable communities, and create good, family-supporting jobs that can never be outsourced. In particular:

- **The Apollo Energy Independence Act** would reduce oil imports by up to 40 percent from projected levels and increase use of renewable bio-fuels to 25 percent of our total liquid fuel needs by 2025, if every state were to act as aggressively as it could. This initiative would make our nation more secure by reducing dependence on oil from the Middle East and other volatile regions, boost farm income, reduce gas prices by giving motorists more choices at the fuel pump, protect our economy by slashing our trade deficit, and save US auto manufacturing jobs by providing incentives to retool and build the more efficient cars and trucks that consumers now demand.

- If adopted by all 50 states, the goals and incentives in **The Renewable Power Investment Act** would ensure that by 2025 our nation derives 20 percent of electric power from such renewable sources as the wind, the sun, and the heat just under the earth's surface while reducing the environmental impacts of traditional power sources. This initiative would better distribute our power supply to make it more secure from natural disasters and terrorist attacks, stabilize costs for consumers, create good-paying jobs in renewable power manufacturing, construction, operations, and maintenance, and reduce global warming pollution.

- The **High-Performance Buildings for Community Redevelopment Act**, if adopted by states nationwide, would create incentives for comprehensive energy efficiency retrofits of existing government offices, schools, hospitals and other public infrastructure over the next ten years while encouraging greater efficiency in new buildings, both public and private. The provisions of this act would provide new career opportunities in the building trades, boost manufacture of efficient HVAC systems and other energy savings technologies, leave more public dollars for public safety, health care, education, and other

vital services, and improve air quality while reducing lung disease in some of our most polluted cities.

- Apollo's **High-Performance Cities Act** provides incentives for in-fill development and new transit projects to ensure more livable, productive, and energy efficient cities. If states adopted these initiatives to cover our nation's 500 largest towns and cities, this act would create tens of thousands of good jobs in the construction, operation and maintenance of new transit systems as well as in the manufacture of related components, , reduce traffic and commuting time, restore inner city neighborhoods, and save consumers money on their gas and electric bills.

Each initiative also reflects a uniquely "Apollo" approach to building a better energy future. The following criteria were used in crafting the clean energy plans that follow:

- First, each initiative sets an **ambitious goal** to be achieved by a specific deadline. Just as John Kennedy challenged our nation in 1961 to land a man on the moon within a decade, today's leaders should challenge our nation once to implement a bold, new Apollo Program for energy independence. This great "can do" nation met the challenge then; we would do it again today.

- Second, each initiative proposes the **public investments and private sector supports** needed to achieve our clean energy goals. Apollo believes we will get farther faster with an agenda that invests in the right infrastructure, technology, and behavior than we will with an agenda that only regulates the wrong infrastructure, technology and behavior. Given the tremendous head start enjoyed by conventional energy technologies, our energy independence plan proposes creative public financing to research, develop, commercialize, and deploy next generation clean energy technologies.

- Third, the investments and policies reflected in each initiative are screened to meet three **broad public purposes**:
    - Each initiative promotes national security by reducing oil dependence.
    - Each creates good American jobs by developing home-grown, clean energy alternatives, and
    - Each protects the environment by emphasizing the development of clean power sources or energy savings over more polluting alternatives.

- Finally, each initiative **shares the economic benefits** with key constituencies necessary to build the political support for a clean energy economy. In particular, each initiative includes provisions to ensure that clean energy investments create family-supporting jobs, benefit neglected urban communities, and strengthen rural communities and family farmers.

No plan can be "one size fits all." Many states are already far along on the path to a new energy future. Others have barely begun. For that reason, elected leaders, advocates, and the media should feel free to adopt and adapt freely from the options offered here when proposing "Apollo Plans" appropriate to their states. We only ask that those who use these materials stay true to the spirit in which they were created by reflecting the goals and standards outlined above.

The Apollo Energy Independence Act

Description

Recovery from Our Oil Addiction

In coming months, state officials have a tremendous opportunity to make our nation more secure, restore our beleaguered manufacturing sector, create good jobs, give a boost to our farmers, improve air quality and reduce global warming pollution. All they need do is end what President Bush calls our nation's addiction to oil.

Increasingly, Americans recognize that imported oil ties our security to some of the world's most unstable regions. An October 2006 study from Greenberg, Quinlan, and Rosner finds that energy dependence is now the top national security concern of American women. Oil imports jeopardize our economy by contributing $250 billion annually to our record trade deficits. Just this year, Detroit automakers shed tens of thousands of good jobs because consumers, faced with rising gas prices, are now shopping for more fuel efficient cars and trucks. Our appetite for oil also contributes enormously to the global warming pollution that puts our very future at risk.

States have responded to rising public concern with a range of policies to replace oil, which today provides 97 percent of our transportation fuel, with homegrown alternatives. New Mexico has set a target of 15% renewable fuel to be used in state vehicles by 2010. Other states such as Minnesota, Hawaii, Montana and Washington have passed legislation which increases the share of renewables in the fuel supply. Still other states, such as Wisconsin and Oregon, have sought to save energy and spur new technology by requiring a share of advanced, efficient vehicles in state motor vehicle fleets.

As renewable fuels gain market acceptance, their benefits are becoming clear:

- Just this year, new ethanol demand created nearly 154,000 jobs. Over 19,000 of these were in the manufacturing sector. By 2015, the sector could create over 209,000 new jobs.[1]

- Today's ethanol production shaves billions of dollars off of the trade deficit. In 2005, ethanol substituted 170 million barrels of imported oil valued at $8.7 billion. [2]

- The United States has the resources to do even more. The U.S. Department of Agriculture found that utilizing all of our potential feedstocks could produce up to 60 billion gallons of ethanol without impacting food supply or export requirements. That would equal roughly 30% of today's petroleum demand.[3] If coupled with efficient vehicle technologies and smart urban growth, the security and trade benefits would be tremendous.

[1] John Urbanchuck. Contribution of the Ethanol Industry to the Economy of the United States. Renewable Fuels Association. 2006.
[2] John Urbanchuck. Contribution of the Ethanol Industry to the Economy of the United States. Renewable Fuels Association. 2006.
[3] U.S. Department of Agriculture. Biomass as Feedstock for a Bioenergy and Bioproducts Industry. 2005.

The Energy Independence Act

The Apollo Alliance believes that states already hold the keys to a future of energy stability, cleaner air, and good jobs. The A*pollo Energy Independence Act* is our legislative template for how to reach that future, encouraging states on their path to provide homegrown fuel substitutes.

The Renewable Fuels Standard

As the centerpiece of the bill, each state would set a Renewable Fuel Standard (RFS)—a goal for renewable fuel use as a share of the state's total projected oil use in 2025. Since states vary significantly in their potential to grow, refine and distribute renewable fuels such as ethanol and biodiesel, the RFS for each state should be based on an objective assessment of the maximum feasible goal. Providing a steady, incremental phase-in would ensure a predictable market for growers and refiners, helping to attract investors to the sector. To ensure that economic benefits are spread to state farmers and businesses, the bill provides incentives to encourage renewable fuel to be produced in-state. If each state did its part, clean alternatives could supply 25 percent of our nation's total vehicle fuel by 2025.

In addition, our bill provides incentives for the private sector to help achieve each state's goal. These include low-interest loans, grants and tax credits to farmers who grow feedstocks, renewable fuel refiners, fuel retailers, and manufactures of related components.

Developing a Renewable Fuels Infrastructure

While it is essential to increase renewable fuel production, states that are serious about energy independence must also invest in a fuel delivery system and an advanced vehicle fleet. Towards this end, our bill uses low interest loans, rebates, and tax credits to increase the number of retail outlets selling biodiesel or E85 (a fuel blend of 85 percent ethanol, 15 percent gasoline) and to encourage in-state manufacturing and use of advanced technology vehicles, including flex fuel, advanced diesel, gas-electric hybrid and "full fuel" vehicles (i.e., those that combine flex fuel and hybrid technologies).

Fairness Standards

The incentives described above will inherently create economic activity; however, states will only truly win if this activity is spread fairly across all sectors of the state economy and all state residents. For this reason, Apollo advocates attaching labor standards, such as model Best Value Contracting requirements, to all public grants, tax credits, and incentives offered in the Energy Independence Act. A well-designed Best Value Contracting system requires agencies to select contractors based on whether they provide the best overall value to taxpayers—including whether they provide job training to local residents and decent wages to locally hired workers.

In this spirit, the Act also spreads economic benefits to rural communities and small farmers by providing financial and technical assistance to cooperative- and community-owned renewable fuel production facilities.

THE [STATE NAME HERE] ENERGY INDEPENDENCE ACT

Bill Summary

Goal: Reduce oil consumption by promoting clean, renewable fuel alternatives and efficient motor vehicle technologies through policies and programs that prioritize in-state renewable fuel production and good jobs.

Stimulate the market for renewable fuels

- Establish a state Renewable Fuels Standard (RFS), gradually phasing in by 2025 the maximum feasible percentage of renewable fuel that could be supplied as a percentage of total vehicle fuel.

Stimulate in-state production and manufacturing

- Provide incentives, such as renewable energy credits, for in-state renewable fuel generation.

- Provide a long-term state production tax credit (based on cost or gallons produced) for in-state renewable fuel generation.

- Provide tax credits or grants to state growers who invest in perennial, no-till, or low-till biomass feedstocks (e.g. switchgrass).

- Provide industrial development bonds or manufacturing conversion tax credits for in-state manufacturers/refiners that

    - refine ethanol or biodiesel for motor fuel,
    - invest in cutting-edge technologies such as cellulosic ethanol,
    - begin manufacturing component parts for renewable fuel or hybrid/flex-fuel vehicle operations, and
    - transition from manufacturing traditional vehicles to manufacture of hybrids, advanced diesel, flex-fuel and other advanced drive train vehicles and related components.

Develop distribution network for renewable fuels

- Offer tax credits or other public financing to gas stations for converting 10% of fuel pumps to E85, cellulosic ethanol, or other renewable fuel alternatives.

Stimulate private investment in state's renewable fuel and hybrid/flex-fuel vehicle industries

- Reduce risk to investors and developers through low-interest loans, accelerated depreciation, or subordinated debt structures.

Stimulate demand for renewable fuel and advanced technology vehicles

- Change state procurement standards to require flex-fuel, hybrid, or other alternative fuel vehicles for state fleets.

- Create consumer and corporate tax incentives or rebates for the purchase of plug-in hybrid electric vehicles, hybrid vehicles, and flex-fuel vehicles.

Capture economic benefits for workers and communities

- Provide financial incentives, such as tax breaks, and technical assistance for cooperative and community ownership of renewable fuel production facilities.

- Offer state crop insurance for in-state biofuel feedstock production.

- Tie model Best Value Contracting standards or other job quality provisions to state subsidies to renewable fuel producers and manufacturers of alternative fuel vehicles.

- Attach a 10% apprenticeship utilization requirement to projects receiving public funding from these programs.

- Establish a 10 % community hire requirement that guarantees that a certain percentage of hours worked on a project will be supplied by workers within 10 miles of the job site.

The Renewable Power Investment Act

Description

Diversifying our Power Supply

A more diverse energy mix that includes a greater share of renewable power can help meet future electricity needs while capturing global markets in new technologies, creating good jobs, enhancing our security, and protecting the environment. Renewable energy can also stabilize the electricity market, providing backup options when coal and natural gas prices spike or plants go offline.

Moving into renewable power will spur a huge, new industry, one that relies on local land, sun and wind resources, and local workers to harness these resources. These industries could tap a rapidly developing opportunity in export markets as well. In 2005, wind and solar markets grew to $11.8 billion and $11.2 billion respectively. These represent annual growth rates of 47% and 55%.[4] By 2015, wind energy could become a $48.5 billion industry. Solar energy could reach $51.1 billion. America already has the expertise and infrastructure to perfect these technologies and produce them for the world market. [5]

Recognizing the opportunity, states have begun cultivating these market segments. Governors in New York, Pennsylvania, New Mexico and 19 other states have signed laws requiring that renewable energy provide a growing share of overall energy supply. Colorado voters adopted a similar mandate through a ballot initiative.

States that lead the way in renewable power development lock in economic benefits for their residents. For instance, a 149 turbine wind project in Lincoln County, Minnesota generated $757,000 annually in new property tax revenue for schools , created a total of $1,07,000 in personal income for construction, transportation, operations and maintenance workers, and generated annual income of $5,000 per turbine for farmers who leased their land for wind towers.[6]

Collective action by the states to develop wind power would generate massive economic benefits nationwide. According to the Department of Energy, moving just 5% of the U.S. electricity market to wind power would provide $60 billion in capital investment, $1.2 billion in new income, and 80,000 new jobs to farmers and landowners in rural communities across the country.[i] Another report shows that moving to a broad mix of renewables for 20% of America's electricity needs could produce 240,850 jobs.[ii]

The Growing Costs of Conventional Power

Over the last century, the United States' electric power sector has relied primarily on fossil fuel energy, mainly from coal but increasingly from natural gas. Nuclear power provides an

[4] Joel Makower et al. Clean Energy Trends 2006. Clean EDGE. 2006.
[5] Joel Makower et al. Clean Energy Trends 2006. Clean EDGE. 2006.
[6] Windustry. Facts on Wind. 2003.
http://www.windustry.org/opportunities/Ecnonomic%20Development%20Fact%20Sheet-%20March%202003.pdf

additional 20 percent of our power supply, with renewables, including water power, providing an additional 9%.

We now know, however, that heavy reliance on fossil fuels is a mixed blessing. Increasing reliance on imported natural gas entails many of the same security risks involved in oil imports. Pollution from fossil fuels causes smog, acid rain and respiratory disease; in the long term, these fuels also contribute to global warming.

Over-reliance on fossil fuels entails economic costs as well. In 2005, the price of natural gas rose 38% while the price of delivered coal rose 13 percent, driving up retail electricity prices an average of 7 percent nationwide.[7] Between 2000 and 2004, the rising price of natural gas alone cost consumers $130 billion.[iii] These rising costs damaged productivity in agricultural, manufacturing, and the petrochemicals industry, contributing to plant closures and the outsourcing of more good jobs.

A more diverse energy supply could mitigate many of the price, security, and environmental risks associated with traditional fuel supplies.

The Renewable Power Investment Act

Apollo's Renewable Power Investment Act is designed to provide tools for states that want to capitalize on the economic and environmental opportunities of renewable power development. This Act not only provides a blueprint for clean energy development, it outlines how states can become leaders in the emerging industry, through:

- Creating in-state demand for renewable energy;
- Developing in-state production capacity for renewable energy and renewable energy technologies; and
- Capturing economic benefits by focusing on community-owned power and workforce training.

Creating in-state demand for renewable energy

To create demand for renewable power, each state should set an ambitious Renewable Portfolio Standard (RPS)—a goal for incrementally adding renewable power as a share of the total power supply. Since states vary significantly in their renewable power resources, that goal should be based on an objective assessment of the maximum feasible renewable power supply in that state. The goal could be met through a combination of in-state alternative power generation (excluding water) and efficiency programs, such as "White Tag" programs that allow businesses to sell credits for saving energy and "Demand Side Management" programs to help consumers save energy. The RPS could be phased in gradually through 2025 to provide assurance to producers, supplies, and investors. If every state adopted its own maximum feasible goal, the country as a whole could draw 20 percent of its electricity from renewable sources by 2025.

The time to act is now. For instance, states could designate cost effective efficiency and renewables as the first option for new supply, counting these power sources toward the state's RPS. If states took aggressive steps now to promote renewable alternatives and energy efficiency, they could meet much of the projected demand growth with cleaner alternatives.

[7] Energy Information Agency, Electric Power Annual with data for 2005, October 4, 2006.

Doing so would not only curb pollution, but could create good jobs in the building trades, stimulate manufacture of essential components such as efficient HVAC equipment and wind towers, reduce electricity prices, and save money for consumers and businesses.

Clean energy production and manufacturing

To meet the growing demand for clean power, the Act would help seed local renewable power industries. Our proposed RPS encourages in-state power generation and production, especially by small-scale, community-owned and cooperatively-held producers. We also ensure that benefits will be spread across the state through "interconnection standards" that allow small producers and forward-thinking consumers to sell excess power back to the electricity grid.

The Act also provides incentives for in-state manufacture of renewable energy components, through industrial development bonds, low-interest loans, and industrial conversion tax credits. Many of these provisions are funded through pension fund investments in the state's renewable energy sector.

Finally, the Act provides funding for research, development and demonstration of advanced clean coal technology, including with carbon sequestration. While coal is not a renewable energy source, its abundance and low cost ensure it a large role in US power production for the foreseeable future. At the same time, if we are to curb global warming, we must find ways to mitigate coals enormous carbon emissions. By taking a lead in the development of new, cleaner coal technologies and carbon sequestration, not only could the United States reduce the impacts of its own coal use, it could develop exportable technologies that mitigate the even larger impacts of coal use in China and India.

Building a Clean Power Workforce

Moving renewable power technologies from a small niche to a mass market requires a trained workforce to manufacture, install, maintain and operate clean energy equipment. The Act's workforce development provisions are designed to promote high-quality, family-supporting jobs while continuously advancing the state of technology through ongoing research and development at state colleges and universities, regional training partnerships among industry stakeholders, and state-sponsored worker training programs.

By investing in both clean power and people, the Act enables states not only to diversify their fuel choices and improve the environment, but to strengthen their economies for years to come.

THE [STATE NAME HERE] RENEWABLE POWER INVESTMENT ACT

Bill Summary

Goal: By 2025, generate the maximum feasible amount of regional electricity in the state from new clean, renewable, sources, through policies and programs that prioritize in-state production, workforce development, and good jobs.

Make state leader in renewable energy technology

- Establish State Task Force for Renewable Energy and Economic Development, with representation from energy, economic development, workforce development, environmental and agriculture agencies as well as the labor, environment, and business communities. The Task Force should :
    - Identify potential investments in renewable energy technologies and industries based on state's key renewable resources,
    - Serve as a clearinghouse for information about federal and state grant money, loan guarantees, tax incentives, and other public financing programs,
    - Identify the workforce development programs and policies necessary to support the implementation of new technologies, and
    - Coordinate state research into renewable generation, energy efficiency, clean coal generation, and carbon sequestration technologies.

Stimulate the in-state market for renewable power

- Set Renewable Portfolio Standard at maximum feasible percentage of total power supply in 2025; include ramp-up schedule (e.g. add 1% of renewable power as share of total supply each year).
- Provide Renewable Energy Credits allowing producers using in-state power from regionally appropriate sources (e.g. solar power in the Southwest, wind power in the Plains states) to receive more than one credit for each unit of power produced to meet the RPS.
- Grant businesses White Tag Credits (tradable instruments representing energy saved over time) to encourage private companies to implement energy efficiency and renewable energy programs, which can be sold to utilities to meet the RPS.
- Require utilities or permit third party public-private entities to enact Demand Side Management programs, allowing credits toward an RPS to be earned from consumer energy efficiency programs or renewable energy power purchasing agreements
- Require that utilities meet growing demand with cost effective energy efficiency and renewable energy options before adding conventional supply.

Stimulate in-state renewable power production and manufacturing

- Provide a long-term (at least 10 year) state production tax credit (based on cost or MW/BTUs) for in-state renewable energy generation.

- Provide industrial development bonds or manufacturing conversion tax credits for in-state manufacturers that begin manufacturing renewable energy products and components, or that install renewable power generators in their facilities.

Stimulate investment in renewable energy

- Reduce risk to private renewable power investors and developers through low-interest loans, accelerated depreciation, or subordinated debt structures.

- Call on state pension funds to consider investing a percentage of their assets in in-state renewable energy production or in a fund of funds that will target in-state renewable energy production, and include a tracking system to ensure economic, social and environmental benefits.

Share benefits with state's workforce

- Incorporate model Best Value Contracting standards into public procurement process, to allow public agencies to contract with companies that specialize in energy efficiency or renewable power development, pay family-supporting wages, and are committed to sustainability principles

- Set aside workforce development funding to train workers in the state for renewable energy jobs in construction, green building, advanced manufacturing, installation and system operation and maintenance.

- Organize regional training partnerships among renewable energy manufacturers, installers, and training providers to develop core curricula in renewable energy workforce training.

- Invest in state college and university departments focused on renewable energy engineering, research, and development.

- Require that renewable power or efficiency projects supported with public funds hire 10% of project employees from local communities within a ten mile radius of the job site

- Require that renewable power or efficiency projects supported with public funds utilize apprentices trained in state-supported programs as 10 percent of project employees.

Capture economic benefits for local communities

- Provide financial incentives and technical assistance for cooperative and community ownership of renewable energy production facilities.

- Set state and regional interconnection standards to allow small producers to sell unused power back to the grid.

- Set net metering standards high low enough to allow small and mid-size producers to sell excess production to utilities.

THE HIGH PERFORMANCE BUILDINGS ACT

Description

Buildings' Role in U.S. Energy Consumption

Buildings represent one of the largest potential sources of energy savings in the United States—larger even than the transportation sector. The built environment accounts for roughly 40% of domestic energy consumption and 71% of electric power use. Reducing energy use in existing and future buildings could save consumers money and create good jobs in the building trades and manufacturing while reducing global warming emissions.

Already energy-saving green building technologies and concepts are gaining an impressive foothold in the marketplace. The U.S. Green Building Council estimates that over the past six years, the green building market has grown from $800 million to $8 billion. The Green Building Alliance suggests that the market could be worth $32 billion by 2010. The future suggests even wider opportunities if policies are set in place. Within 30 years, roughly 75% of the country's build environment will be either new or renovated. [8]

Much of the progress to date is a result of state level leadership. In Michigan, Executive Directive 2005-4 will decrease energy use in state buildings by 20% by 2015. In Washington, the Governor signed an Executive Order in 2005 requiring new public buildings to meet LEED Silver certification.

The private sector is also showing new leadership. Seven World Trade Center might be the most symbolic example of the trend. This 52 story building was the last to fall and the first to rise from the September 11 attacks. [9] Built to the LEED Gold standard, it illustrates the combination of will and ingenuity which has always moved the nation beyond its greatest challenges.

The Benefits of Building Green

State policies to encourage investment in high-performance buildings offer both opportunities and challenges. Any state that makes a serious commitment to curbing building energy demand will save many millions of dollars in energy costs in the long term. A 2005 study by the Alliance to Save Energy suggests that an ambitious set of building efficiency policies implemented across the country would save consumers $56 billion per year by 2020, while reducing national energy growth by 27% and growth in carbon emissions by 28%.[iv]

Green schools, offices and factories could even enhance worker productivity. The Lawrence Berkeley National Lab found that using more daylight and better building materials could produce $20 billion in savings from reduced sick building syndrome and up to $125 billion from improved workforce performance.[10]

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[8] Michael Burnham. "Energy, climate concerns shape new generation of skyscrapers". October 12, 2006. Greenwire.
[9] Michael Burnham. "Energy, climate concerns shape new generation of skyscrapers". October 12, 2006. Greenwire.
[10] Michael Burnham. "Energy, climate concerns shape new generation of skyscrapers". October 12, 2006. Greenwire.

At the same time, investments in retrofitting existing buildings and incorporating green technology in new buildings could create tens of thousands of construction, manufacturing, design, and maintenance jobs. Green buildings could provide career ladders out of poverty for entry level workers, especially in urban areas with few low-skilled, decent-wage job options. Retrofits of existing state and local government buildings could create up to 300,000 jobs.[11] A large, nationwide tax incentive program for residential and commercial buildings could create as many as 400,000 new jobs over 10 years.[v]

The Apollo Alliance High Performance Buildings Act

The Apollo Alliance High Performance Buildings Act is designed to help each state capture its share of the economic and environmental benefits from more efficient buildings. The Act is comprehensive, focusing on both public and private buildings through state audit and retrofit programs, procurement plans, building and appliance codes, tax incentives, and bond finance. As with all Apollo proposals, the Act also includes job quality standards and incentives for in-state production. Below, we describe some of this Act's features:

Promoting Efficient Public Buildings

The High Performance Buildings Act provides state governments with a roadmap to audit and retrofit existing state buildings, and to set high standards for new public building construction. The Act adopts industry standards for new public and publicly-financed construction and retrofits, and reinforces these standards through scheduled building audits, continuous commissioning, and procurement guidelines which require energy efficient lighting, appliances and fixtures in all public and publicly-financed buildings.

Promoting Efficient Private Buildings

In the private sector, the Act provides a framework for constant improvement through modernized residential and commercial building energy codes, which prescribe the minimum permissible efficiency for new construction and major renovation. The Act also requires states to update their appliance efficiency standards, to include the many small appliances not currently covered by federal law. By continuously improving building and appliance performance, states can curb energy use while helping private residents and businesses capture valuable energy savings.

The Act sets a floor, not a ceiling, for energy efficiency. Once the minimum requirements for efficient building have been met, developers and building owners are rewarded—via low-interest loans and tax incentives—for exceeding them. Rewarding those who exceed legal requirements will increase the presence of new technologies in the market and move efficient design concepts into standard practice.

Creating Economic Opportunity

Improving statewide building performance will create considerable economic activity, both through energy savings that are reinvested in the state economy, and through jobs that are created

[11] Personal communication with Donald Gilligan, National Association of Energy Savings Companies. May 2006.

through state investment in manufacturing, new construction, and retrofits. The Act delivers economic benefits to in-state manufacturers of energy efficient products through two primary vehicles: tax incentives and low-interest bond proceeds. Encouraging these businesses to enter the market not only provides in-state jobs, it supports technological innovation.

The Act also guarantees in-state construction, installation, and operating and maintenance jobs by targeting investment to major construction and renovation projects. At the same time, the Act includes labor incentives and worker training programs to address the fact that many workers are still unfamiliar with best practices, design concepts, and building strategies for high-performance building.

This Act's comprehensive approach provides a means to continuously reduce building energy use though technology refinement and deployment. Moreover, the Act leverages these technologies to train workers in advanced building design and construction. Together these efforts will save consumers money, slow climate change, and create strong local economies for states.

THE [STATE NAME HERE] HIGH-PERFORMANCE BUILDINGS FOR COMMUNITY REDEVELOPMENT ACT

Bill Summary

Goal: Revitalize communities by auditing and renovating all state buildings that fail to meet minimum energy efficiency standards, requiring efficient and green construction practices in all new public and private buildings, reducing energy consumption, and creating good jobs and job training for state residents.

Ensure High Performance Public Buildings

- Within ten years, audit and retrofit all state buildings, including public schools and public housing projects, to maximize energy efficiency and renewable energy use, capturing energy savings to pay for retrofits, installing on-site renewable energy generation and supplementing agency budgets.

- Require all new publicly funded construction to be built to LEED Silver (or similar/higher) standard or Energy Star standard for residential buildings.

- Require all publicly owned and leased buildings to follow LEED Existing Building (or similar/higher) standards, or Energy Star standards for residential buildings, for retrofits, maintenance, and repair.

- Include building commissioning process as part of all new construction to ensure energy efficiency goals are met throughout design and building process.

- Update procurement standards to require energy efficient lights, appliances, fixtures, and other purchases in all public buildings

Encourage Energy Efficient Private Buildings

- Update building codes to provide standards for energy efficiency in new construction, and provide a mechanism allowing codes to automatically update to newest standards.

- Update Appliance Efficiency Standards in cases where federal standards are lacking.

- Set Green Building standards for all new developments receiving public subsidies, including TIF money.

- Provide tax credits to private developers who propose developments meeting LEED Silver (or similar/higher) certification, or Energy Star certification for residential buildings.

- Provide low-interest financing options for private building owners to finance the up-front cost of energy efficiency retrofits.

- Offer tax credits for energy savings achieved in private commercial and residential buildings, similar to incentives offered in the federal Energy Policy Act of 2005.

Stimulate in-state production and manufacturing

- Provide industrial development bonds or manufacturing conversion tax credits for in-state manufacturers that begin manufacturing energy efficient fixtures, metering equipment and appliances.

Stimulate private investment in state's energy efficiency activity

- Call on state pension funds to consider investing a percentage of their funds in in-state energy efficiency programs or in a fund of funds that will target in-state energy efficiency programs, and include a tracking system to identify the energy savings from these investments.

- Require state PSCs or PUCs to require Demand-Side Management Programs at every utility (or establish a third party public-private entity to institute these programs) and to institute a "decoupling" program in the state to detach utility profits from energy use.

- Require state PSC's or PUC's to require advanced two-way metering equipment to reduce energy consumption, as well as introduce "real time" pricing for power usage.

- In states where public financing is not otherwise available to retrofit all public buildings within ten years, require state agencies to conduct energy audits and sign model contract with private Energy Savings Companies (ESCOs) and their contractors and subcontractors to finance and perform retrofits. These contracts should provide job training and hiring for local community residents, include apprenticeship utilization standards, establish job quality standards , capture a portion of energy cost saving for public services (for instance, a percentage of savings from a hospital retrofit could be captured for patient care), and ensure that retrofits are as comprehensive as possible.

Stimulate local labor market

- Incorporate model Best Value Contracting standards into public procurement process, to allow public agencies to contract with companies that pay family-supporting wages, specialize in energy efficiency work, and are committed to sustainability principles.

- Attach a 10% apprenticeship utilization requirement to projects receiving public funding from these programs.

- Establish a 10 % community hire requirement that guarantees that a certain percentage of hours worked on a project will be supplied by workers within 10 miles of the job site.

- Set aside workforce development funding to train workers for jobs in energy efficient construction, LEED and Energy Star building standards, and advanced manufacturing.

- Organize regional training partnerships among energy efficient fixture/appliance manufacturers, installers, and training providers to develop core curricula in energy efficiency workforce training.

The Apollo High-Performance Cities Act

Description

As more and more Americans move to cities and suburbs, state and local governments have an opportunity to manage future growth in ways that maximize economic benefits and preserve environmental amenities. While localities control most of the policy tools for promoting "high-performance" towns and cities, this section outlines the major tools at the disposal of states.

The Benefits of Smart Growth

States and municipalities can strengthen their fiscal positions through smart growth policies. In addition to preserving good jobs near urban populations, dense communities are less costly to maintain. Bruce Katz, Vice President of the Brookings Institution observes that "compact growth can be as much as 70 percent cheaper for governments than equivalent volumes of scattered growth. It simply costs less to provide infrastructure (such as streets, schools, flood control or sewers) and often services (such as police or fire protection) to denser, more contiguous households than to far-flung, low-density communities."[12] Through smart growth policies, states can receive the double benefit of clean, livable communities which are economically vibrant.

In addition to preserving jobs, smart growth can create new ones. For example, $1 billion invested in transit capital projects will create 30,000 jobs. The same amount invested in operations will support 60,000 jobs.[13] Similarly, a study by the U.S. Conference of Mayors revealed that redeveloping the U.S. stock of brownfields would produce 555,000 jobs and $2.4 billion in increased tax revenue. Equally important, it could support more than 5.8 million new people in cities- equivalent to the combined population of Chicago and Los Angeles.[14] These opportunities illustrate why governments at all levels should consider smart growth policies.

The Apollo High-Performance Cities Act

Forward-thinking states can ensure that their economy is more robust, their ecological footprint is smaller, and their utility bills lower, if public policies ensure healthier suburban growth patterns. States can also provide workers with thousands of jobs as they construct smarter urban spaces and transit systems.

To this end, the Apollo High-Performance Cities Act incorporates a variety of smart growth policies that leverage state resources to encourage cities to embrace efficient, low-energy growth and strong long-term land use plans. The Act rewards cities for redeveloping and retrofitting existing buildings and infrastructure, giving incentives for residents to live near transit and jobs, and preserving open space. These policies also save energy by ensuring that residents live closer to jobs and transit hubs, and that rural areas are protected from overdevelopment. Finally, the Act works to build a high-skilled, fairly-paid workforce to build these high-performance cities.

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[12] Bruce Katz. Smart Money is on Smart growth. Brookings Institution. 2003.
[13] American Public Transportation Association. The Economic Importance of Public Transit. 2003. http://www.apta.com/research/info/online/economic_importance.cfm#link6
[14] U.S. Conference of Mayors. 231-City Report Shows Effects of Brownfields in America. 2000. http://www.usmayors.org/uscm/news/press_releases/documents/brownfields022400_final.asp

Promoting efficient metropolitan growth

The Act achieves its land use goals through two vehicles: financial incentives and land use planning. Developers will receive smart growth tax incentives for energy efficient building projects near public transit and in densely populated areas. In addition, states enacting this bill will require strong local and regional land use plans premised on smart growth strategy. State financing—including tax incremental financing and enterprise zone programs—will only be available to local projects which comply with those plans.

Promoting smart, high-tech transportation networks

The Apollo High Performance Cities Act refocuses federal transportation dollars to low-waste transit and infrastructure projects in a number of ways. First, the Act requires Metropolitan Planning Organizations to consider oil savings as a central factor in transportation planning. This will implicitly give preference to clean and alternative options such as mass transit and bicycle commuting. Second, the Act promotes connections between the state's major business centers by setting aside transportation dollars to build high speed regional rail networks. Inter-city rail is a great alternative to heavily-polluting short regional airline flights, especially as states can use existing rail lines that already lead directly into most central business districts.

Finally, the Act requires that highway and road funding be allocated on a "fix it first" basis, where priority is given to fixing existing infrastructure before building new projects. "Fix it first" makes already-developed areas more attractive for residents and businesses while curtailing sprawl to outlying areas.

Promoting community benefits and a highly trained workforce

To be truly sustainable, smart growth plans must have environmental, economic, and equity benefits. The Apollo High-Performance Cities Act includes local hire requirements to ensure that the earnings from smart growth activities—including manufacturing, construction, operations and maintenance—remain in local communities. These include local hire and apprenticeship requirements, as well as a state-sponsored worker training program.

The Apollo Alliance believes that more sustainable, smarter development in both cities and suburbs is both possible and necessary. Implementing the Apollo High Performance Cities plan is good energy policy, good environmental policy, and good for America's working families.

THE [STATE NAME HERE] HIGH-PERFORMANCE CITIES ACT

Bill Summary

Goals: Promote low-energy, high-performance cities and communities connected by regional public transportation networks, through policies and programs that prioritize local hiring and good jobs.

Promote efficient metropolitan growth

- Implement Smart Growth tax credits to reward developers for efficient, low-energy building projects built in densely populated areas near public transit.

- Require strong local and regional land use plans and provide state financing only to projects falling in those plans.

- Encourage cities to require developers to use a minimum percentage of on-site renewable energy for any projects receiving public funding.

Channel federal transportation dollars to promote smart, high-tech transportation networks

- Require Metropolitan Planning Organizations to develop and implement oil savings plans as required by SAFETEA.

- Develop a high-speed rail network connecting the state's major urban business centers.

- Require that all state and local highway and road funding be allocated on a "fix it first" basis.

Promote the workforce of the future

- Incorporate model Best Value Contracting standards into public procurement processes to allow public agencies to contract with companies that pay family-supporting wages, specialize in energy efficiency work, and are committed to sustainability principles.

- Attach a 10% apprenticeship utilization requirement to projects receiving public funding from these programs.

- Establish a 10% community hire requirement that guarantees that a certain percentage of hours worked on a project will be supplied by workers within 10 miles of the job site.

- Set aside workforce development funding to train workers for jobs in building and transit construction.

[i] Department of Energy. *Wind Energy for Rural Economic Development.* 2004. Last viewed 2/1/05 at http://www.eere.energy.gov/windandhydro/windpoweringamerica/pdfs/wpa/33590_econ_dev.pdf

[ii] Daniel M. Kammen et al. Putting Renewables to Work. University of California. 2004.
[iii] Industrial Energy Consumers of America.
http://resourcescommittee.house.gov/Press/reports/energy/46mnthnatgas_ieca.pdf
[iv] Ibid.
[v] David Goldstein. Analysis of S. 507/ HR 1271.