

# *Energize America*<sup>™</sup>

## *A Strategic & Comprehensive Grassroots Plan to Achieve U.S. Energy Security by 2020 & U.S. Energy Independence by 2040*

*Abstract: Energize America offers a clear and compelling vision of our energy future that eliminates the risks to our economy, our environment and our lifestyle resulting from our increasingly dangerous dependency on fossil fuels.*

*This plan was created and refined between September 2005 and May 2006 by hundreds of progressive citizen activists who met and collaborated via the DailyKos web site ([www.dailykos.com](http://www.dailykos.com)).*

### *\*Written by*

*Jérôme Guillet / \*Jerome a Paris  
George Karayannis / \*Doolittle Sothere  
Timothy Lange / \*Meteor Blades  
Mark Sumner / \*Devilstower*

### *\*Contributing Editors*

*\*A. Siegel, \*Besieged by Bush, \*BTower, Chris Kulczycki, Darien Simon, \*Deb9, \*Mateosf,  
and hundreds of other informed citizen activists*

*\*Note: Denotes Daily Kos User ID*

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## ***Energize America*<sup>TM</sup> – Achieving U.S. Energy Security by 2020**

### **Objectives**

To provide the U.S. with Energy Security by 2020 and Energy Independence by 2040 by: 1) reducing greenhouse gas (GHG) emissions by 75%, 2) reducing oil imports by 50%, 3) generating 25% of electricity from renewable sources, and 4) creating or preserving over three million new jobs by 2020.

### **Description**

America remains dangerously and increasingly addicted to fossil fuels, which directly threatens national security, economic stability and the overall quality of American life. In addition to remaining critically dependent upon imported oil to meet transportation needs, America remains highly dependent upon domestic coal to meet its needs for electricity. The rapidly growing use of both of these fossil fuels generates enormous amounts of GHGs, which become trapped in the earth's atmosphere and contribute to global warming and its associated extreme weather events and sea level changes.

Interruptions to oil, gas or coal supplies by natural or man-made events can cause significant and prolonged economic pain and social turmoil with little or no warning.

America once led the world in both automotive and renewable energy engineering, but has seen this lead vanish to foreign competitors along with well over a million manufacturing jobs.



Figure 1 - Total US Energy Production and Consumption 1975 - 2025 (Source: EIA 2006, [www.eia.doe.gov](http://www.eia.doe.gov))

***Energize America*** is a grassroots effort created and refined by informed citizen activists, and not by lobbyists or politicians. As such, it takes an unvarnished and objective look at U.S. energy policy with the single goal of achieving U.S. energy security by 2020, defined as the ability to withstand a prolonged supply interruption, and U.S. energy independence by 2040, defined as energy self-sufficiency.

***Energize America*** provides an ambitious but achievable 20-point plan to wean America from its fossil fuel addiction, to dramatically and responsibly reduce GHG emissions, to rebuild America's manufacturing base, and to insulate the American economy from the effects of political turmoil, natural catastrophes and shrinking oil supplies worldwide.

***Energize America*** strongly favors a free market-based approach to solving our energy dilemma, though the plan is clearly guided by a strategic vision of a sustainable energy future and a public-private partnership model based on the highly-successful Apollo lunar program. ***Energize America*** will leverage the incredible power and innovation of American industry to research, develop and commercialize energy efficiency technologies that will provide significant and continuous improvements to American consumers, and will help focus and unleash this creativity through clear and consistent policies and substantial long-term tax and regulatory incentives.

**Energize America** aims to create a level playing field for all energy providers, consumers and technologies. For renewable energy sources, this will mean subsidizing the development and deployment of wind, solar, biomass and other solutions. These investments will help these clean and local sources of energy compete more effectively with fossil fuels, which have benefited from decades of direct subsidies and other benefits. Figure 2 below highlights one example of the historical disparity in federal financial support for nuclear and wind power – with nuclear power enjoying nearly 40 times the financial assistance of wind over an initial 15 year development period while delivering only slightly more gross electricity production.

15 year industry development period	Gross electricity production (bn KWh)	Effective subsidy (USD/KWh)	Total subsidy over 15 year period (billion USD)	1999 generation (bn KWh)
Nuclear (1947–1961)	2.6	15.3	39.4	727.9
Wind (1975–1989)	1.9	0.46	0.9	3.5

Figure 2 - Nuclear & Wind Energy Industry Investment Comparison  
(Source: Goldberg 2000)

## Benefits

**Energize America** will transform American society – from the way we generate and use energy, to the way we design and drive vehicles, to the way we think about energy efficiency and conservation, to the way we deal with foreign governments. In short, **Energize America** will create an energy-aware culture that treats energy as a strategic and vital economic resource, and which leads the world in the design and manufacture of renewable energy systems and energy efficient products.

**Energize America** will:

- enable Americans to soon drive vehicles that are far safer, cleaner, and dramatically more fuel-efficient than today’s vehicles,
- maximize energy efficiency in homes and businesses,
- strengthen the U.S. industrial base,
- ensure that the United States leads the world in the benefits of clean coal, in the design, manufacture and export of renewable energy systems, and in the reduction of GHGs,
- save taxpayers money by lowering the cost of operating federal, state and local governments,
- save the US economy billions of dollars per year through reduced medical and other costs associated with global warming and pollution

Most importantly, **Energize America** will ensure that all Americans can enjoy continued access to safe, reliable and affordable energy. In sum, **Energize America** will save Americans trillions of dollars in energy costs and reduce GHG emissions 75% by 2020, and make energy independence by 2040 attainable.

## Benefit Examples

*Homeowners* – will save money from:

- 1) highly energy efficient dwellings,
- 2) an ability to directly control energy costs,
- 3) greater energy provider choice, and
- 4) the ability to generate some or all of their own electricity needs.

*Businesses* – will benefit from:

- 1) energy-optimized buildings and factories,
- 2) increased control over energy costs,
- 3) greater ability to generate some or all of their energy needs, and
- 4) access to new markets for energy-efficient products and services

*US Automakers* – will benefit from:

- 1) access to a ready market for ultra fuel efficient vehicles
- 2) the creation and retention of over 1 million auto manufacturing jobs
- 3) a rare opportunity to regain a competitive edge globally

*Communities* – will benefit from:

- 1) energy availability in the event of an unplanned, large-scale power failure
- 2) energy solutions matched to local needs and resources
- 3) new jobs from renewable energies, particularly for rural and remote communities
- 4) enhanced ability to attract and retain new residents and businesses

*Environment* – will benefit from:

- 1) stabilized GHG levels
- 2) the protection of natural resources and designated ecosystems

**Energize America** will undoubtedly be attacked by special interests -- namely the fossil fuel lobbies that will resist its aggressive migration to renewable energy sources. In addition, those who do not agree that global warming poses a growing threat may challenge its GHG emissions goals. **Energize America** will not please everyone, but it is designed with all Americans, and all future generations, in mind. Following is a summary of **Energize America's** position relative to existing energy sources.

#### Oil

**Energize America** is driven by the reality of 'Peak Oil', the fact our planet is reaching or has reached an irreversible period of shrinking oil production-- which is compounded by rapidly growing demand worldwide. Tar sands and other oil sources can provide some stop-gap relief from Peak Oil but cannot fully replace increasingly expensive and rare oil. **Energize America** aims to make the U.S. functionally free from imported oil by 2040 for national security, economic, and environmental reasons.

#### Coal

America enjoys the largest coal reserves in the world, which is both a blessing and a curse. Coal can meet our long-term needs for electricity and can also be liquefied into oil for transportation. However, the mining of coal can be devastating to the environment if not done carefully, and the burning of coal can release significant amounts of GHGs into the atmosphere if not done responsibly. **Energize America** aims to minimize the environmental and GHG impact of coal use.

#### Nuclear

Nuclear power is experiencing a political resurgence of sorts, and several new plants are in various stages of planning. However, the nuclear industry enjoys huge subsidies that shield the industry from nuclear disaster liability. The nuclear industry and our government have also failed for decades to solve the nuclear waste problem. These issues must be addressed before nuclear power is more widely used.

#### **Investment**

**Energize America** will require an investment of approximately \$250 billion through 2020, or roughly \$25 billion per year — a strategic investment that will provide substantial returns immediately and for generations to come. Included in **Act XX** is a balanced funding strategy to achieve U.S. energy security.

## Act I – The Passenger Vehicle Fuel Efficiency Act (“500mpg Cars”)

### Objectives

1) To help Americans transition to increasingly more fuel-efficient vehicles by providing a financial incentive based on the relative fuel efficiency of the newly purchased vehicle, and 2) to directly and significantly reduce the amount of vehicle-related greenhouse gasses emitted into the atmosphere.

### Description

Passenger vehicles account for over 40 percent of all U.S. oil consumption; therefore, increasing fuel efficiency is the quickest way to reduce our foreign oil dependence. Passenger vehicles also contribute about 20 percent of all U.S. carbon-dioxide emissions, so increasing fuel efficiency will also reduce significantly greenhouse gas emissions.

The **Passenger Vehicle Fuel Efficiency Act** will provide financial incentives to individuals who purchase increasingly fuel efficient cars – but does not mandate higher Corporate Average Fuel Efficiency, or CAFE, standards. Instead, **Energize America** calls for fuel efficiency measurement standards to be defined simply and applied consistently across the industry, with rapid increases in average fuel efficiency coming from market incentives and not from federal mandates. These market incentives are referred to as ‘feebates’<sup>1</sup>, in that rebates are offered for higher performing vehicles while fees are assessed on lower performing vehicles within a given class.

The **Passenger Vehicle Fuel Efficiency Act** will provide Americans who buy a new car, SUV or light truck with a \$200 rebate for every ‘mpg equivalent’ the vehicle comes in above the average for new cars, adjusted annually. The ‘MPG equivalent’ for each vehicle will be calculated annually using a single, consistent approach that takes into account petroleum replacement by electricity, hydrogen or other fuel technology. For example, a 2006 Ford Escape hybrid, which has a 33mpg rating, would qualify for a rebate of \$2,200 (\$200 x 11mpg, based on the current 22mpg average for light vehicles in America). At the same time, a fee of \$150 per mile per gallon equivalent would be applied against vehicles falling below the fleet average. Thus, the Hummer H2 – with a reported 9 mpg – would have a \$1,950 fee added to its price in 2006. This feebate program will be capped at a maximum of \$6,000 per vehicle and will apply to all vehicles and all fuel technologies. The **Passenger Vehicle Fuel Efficiency Act** will also establish a structured low interest loan program to foster fuel efficient car ownership among Americans earning less than the median income as determined by Congressional District.

### Benefits

The **Passenger Vehicle Fuel Efficiency Act** will increase vehicle fleet fuel efficiency at least 50% over the life of the program -- from today’s 22mpg to 33mpg or more in 2020. This act will reduce America’s private transport-related oil consumption by 33%, from 9 million barrels per day to less than 6 million barrels per day by 2020. In total, this act will save Americans over \$30 billion per year on average (at current prices), or \$500 billion in energy costs through 2020. In addition, this act will cut vehicle-related carbon emissions by nearly 75%, or 50 million tons per year by 2020, worth nearly \$1 billion per year in carbon credits at current market prices.

### Investment

The **Passenger Vehicle Fuel Efficiency Act** will cost an estimated \$12B per year or roughly 40 percent of the savings that consumers will see through reduced fuel use.

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<sup>1</sup> Source: Rocky Mountain Institute’s ‘Winning the Oil Endgame’, [www.rmi.org](http://www.rmi.org)

## Act II – The Transportation Industry Efficiency Act (“Long Haul”)

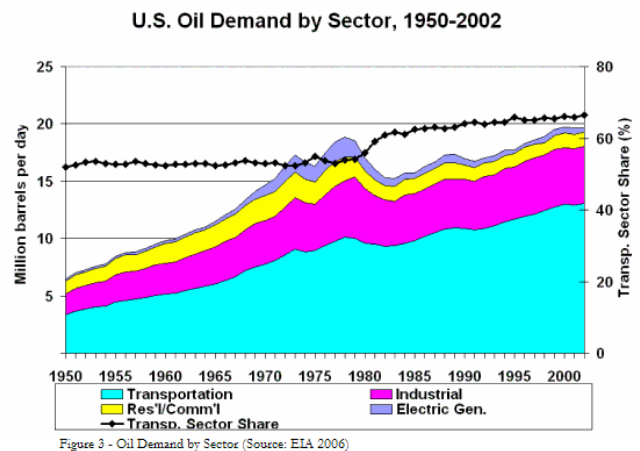
### Objective

To at least double the fuel efficiency of America’s commercial transportation sector, including heavy truck, rail and airplane fleets by 2020.

### Description

In the United States, about 2/3 of all oil use is for transportation. Gasoline, in turn, accounts for about 2/3 of the total oil used for transportation in the United States<sup>2</sup>. Based on current GHG emission reporting guidelines, the transportation sector directly accounted for approximately 27 percent of total U.S. GHG emissions in 2003. Transportation is also the fastest-growing source of U.S. GHGs and the largest end-use source of CO<sub>2</sub>, which is the most prevalent greenhouse gas<sup>3</sup>.

The **Transportation Industry Efficiency Act** will allow businesses and manufacturers to accelerate depreciation for the development or purchase of heavy trucks whose fuel efficiency and pollution metrics are at least 50% better than the US fleet average (adjusted annually), and will include R&D tax credits to help spur innovative solutions in the long-haul, rail and airplane markets. In addition, the **Transportation Industry Efficiency Act** will: a) increase the maximum allowable truck load to 110,000 pounds, b) increase maximum trailer length from 53 feet to 59 feet, and c) increase maximum truck height to 14 feet for all federal highways.



The **Transportation Industry Efficiency Act** will allow airlines to accelerate depreciation for the purchase of new aircraft whose fuel efficiency and pollution metrics are at least 25% better than the fleet average (adjusted annually) or at least 50% better than aircraft they are replacing (as long as these aircraft are removed from flyable inventory). In addition, this act will direct NASA to work with the Department of Defense to develop fuel efficient technologies and approaches that will be provided to US airlines and airplane manufacturers with US presence for improving the fuel efficiency of aircraft.

### Benefits

The **Transportation Industry Efficiency Act** will increase heavy truck fleet fuel efficiency from 6.2 mpg today to 14 mpg or more by 2020, allowing commercial transport-related oil consumption to drop from 4 million barrels per day to 2 million barrels per day. In total, this act will save Americans \$20 billion per year on average (at today’s prices), or over \$300 billion in energy costs through 2020. In addition, this act will cut commercial vehicle-related carbon emissions by nearly 75%, or 30 million tons per year by 2020, worth nearly \$600 million per year in carbon credits at current market prices.

### Investment

The **Transportation Industry Efficiency Act** will cost an estimated \$3 billion.

<sup>2</sup> [http://www.eia.doe.gov/pub/oil\\_gas/petroleum/analysis\\_publications/oil\\_market\\_basics/Demand\\_text.htm](http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/oil_market_basics/Demand_text.htm)

<sup>3</sup> <http://www.epa.gov/otaq/greenhousegases.htm>

## Act III – The Fleets Conversion Act (“Mass Transit”)

### Objectives

1) To significantly improve fuel efficiency and reduce carbon emissions in the vehicle fleets of local, state & federal governments and commercial organizations, and 2) to create a ready market for a range of increasingly clean and energy-efficient vehicles for transportation and commerce.

### Description

Fleets of commercial and government vehicles offer a promising opportunity to make significant and relatively quick progress in the migration to a clean and renewable energy future. The US Government alone maintains an automobile fleet of over 1.2 million vehicles and 2.8 million Class 1-5 trucks<sup>4</sup>. As one of the largest purchasers of vehicles, the US government has both the responsibility and capability to lead the nation by example of its purchasing power. In addition, there are over 400,000 school buses<sup>5</sup> and 120,000 municipal buses in the US.



The **Fleets Conversion Act** will require that within two years of passage that all local, state and federal governments begin to purchase vehicles whose fuel efficiency and pollution metrics are at least 50% better than the US fleet average (adjusted annually). Within seven years of passage of this act, the entire existing federal government vehicle fleet shall be replaced, and each year thereafter will see continued fleet mileage improvement. Starting three years after passage, all fossil fuel-powered vehicles for governmental use will be required to have flexible fuel systems, enabling them to use both fossil and biofuels.

The **Fleets Conversion Act** will also provide incentives to assist businesses in the transition to more efficient vehicle fleets. Vehicles whose fuel efficiency and pollution metrics are at least 50% better than the US fleet average (adjusted annually) for any given task will be eligible for one-year depreciation, while other vehicles will be depreciated over five years. Agencies, local governments and private entities which install electric, bio-gas or other infrastructure to serve these vehicles shall receive tax credits based on the amount of petroleum displaced. Local efforts to convert mass transit agencies and school districts to use landfill or other bio-gas, biodiesel and plug-in hybrids will be encouraged.

### Benefits

First and foremost, the **Fleets Conversion Act** will motivate the transportation industry to provide the market with a range of increasingly clean and energy-efficient vehicles. Local, state and federal fleet fuel efficiency will be tripled by 2020, saving over 500,000 barrels of oil per day and 5 million tons of greenhouse gases annually. In total, this Act will save Americans \$1 billion per year on average (at today's prices), which can be used to invest in other government services or to reduce taxes.

### Investment

The **Fleets Conversion Act** will cost an estimated \$150 million per year.

<sup>4</sup> [http://www.fleet-central.com/af/t\\_pop\\_pdf.cfm?action=stat&link=http://www.fleet-central.com/af/stats2005/AFFB05p09.pdf](http://www.fleet-central.com/af/t_pop_pdf.cfm?action=stat&link=http://www.fleet-central.com/af/stats2005/AFFB05p09.pdf)

<sup>5</sup> <http://transportation.sandi.net/stats.html>



## Act IV – The Community-Based Energy Investment Act (“Neighborhood Power”)

### Objective

To enable local communities across America to deploy community-scale energy projects suited to their locale and available resources by making private, low-interest financing available.

### Description

Local communities around the country already use bonds to finance energy efficiency and renewable energy programs. Structured so that the energy savings and produced energy have a greater annual value than the cost of the bond, these programs have enabled communities like San Francisco to invest in their energy future<sup>6</sup>. The **Community-Based Energy Investment Act** provides funding for energy-saving investments and renewable energy production from bonds that are paid off via those savings, and which lower total community energy costs. These combined energy efficiency and production programs can provide annual returns of well over ten percent, which provides a path for continuing investments in these arenas.

Structuring these bonds, however, is an expensive process requiring significant expertise and skills which many state and local communities cannot afford. The federal government shall establish a program within the Department of Energy bringing together this expertise and hiring advisors from the financial community to help local and state governments establish bond programs to fund energy efficiency and renewable energy programs. The federal government will assist in the structuring of program elements, from technical surveys, to balancing efficiency and production elements, to offering bond model options. This act will make available up to 10 percent of the project cost (matching the amount invested by the local authorities), with the balance of funding coming from the private market, thus ensuring the commercial validity of each project. The agency will help ensure that the realized energy savings can be monetized to repay the loans – e.g., the energy savings will be greater each year than the funds required to pay back the loans.

### Benefits

The **Community-Based Energy Investment Act** will allow local communities to launch energy projects most suited to their local requirements and conditions such as weather, availability of resources, commercial or residential needs, and presence of specialized local competences or industries. By providing up to \$1 billion of seed money, the Act will facilitate up to \$10 billion per year of local and state investments in energy efficiency and renewable energy production.

These bonds will serve a critical purpose by using Federal, State, and Local government expenditures to spur development of expertise and private industry capabilities to meet local requirements for energy efficiency and renewable energy specialists for construction, installation, and maintenance of these new systems. The investments will also provide a strong market environment welcoming of new technologies and approaches for energy efficiency and renewable energy programs that are suitable across all the different climates of the United States.

### Investment

The **Community-Based Energy Investment Act** will cost approximately \$1 billion per year in matching funds for local and state governments, along with \$100 million per year for administration expenses.

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<sup>6</sup> [www.votesolar.org](http://www.votesolar.org)

## Act V – The Passenger Rail Restoration Act (“Bullet Trains”)

### Objective

To enable the development of privately-financed and operated high-speed passenger rail service between select, high-density urban areas.

### Description

Both tourism and commerce rely on rapid, dependable transport between cities. This has increasingly been handled by air travel, but the dual pressures of increased security and rising fuel prices have made air travel both more cumbersome and more expensive. High-speed passenger rail is more fuel efficient, quicker and more environmentally responsible than regional air travel, and can serve a key role in a low-emissions future.

American passenger rail service could rebound if a single modification were made - increased speed on dedicated infrastructure. The **Passenger Rail Restoration Act** proposes a federal-state-private partnership to build, equip and operate three new high-speed rail lines using existing technology, such as Japan's bullet trains or Germany's Inter City Express trains. One system would be built in the Northeast (e.g., Boston to Richmond), one in the Midwest (Dallas to Chicago potentially), and one in the West (e.g., San Diego to San Francisco). European experience shows that high-speed trains are more convenient, faster and profitable on high-density or metro-to-metro lines, and can offer a compelling alternative to air travel on trips up to 500 miles, taking 90% of airline traffic for point-to-point trips of less than 2 hours (300 miles), and 50% of airline traffic for trips lasting 3 hours (500 miles).



**Eurostar high-speed passenger rail example**

Federal involvement would be limited to facilitating the permitting procedures and providing a stable regulatory framework over at least 25 years of operations of these high-speed lines, which would be built, financed and operated by the private sector.

### Benefits

The **Passenger Rail Restoration Act** will provide highly efficient, cost effective and environmentally sound public transportation in three of the country's most densely populated regions, replacing up to 15 million airplane trips per year, saving the equivalent of 500,000 barrels of oil per year. Furthermore, this act will establish clear benchmarks for success that, if met, would lead to the development of dedicated, high-speed passenger rail service throughout the country.

### Investment

The **Passenger Rail Restoration Act** will have a negligible cost as the investments will be borne by the private sector.

## Act VI – The Clean Coal Generation Act (“Clean Coal”)

### Objective

To ensure the implementation of clean-coal technologies to significantly reduce the emissions of greenhouse gases during the generation of electricity.

### Description

Coal is relatively cheap and extraordinarily abundant in the United States. At present, coal generates about half of America's electricity, with dozens of new plants being built across the country. For the next half-century, coal-burning power plants are currently planned to provide the primary source of electricity. Given coal's potentially devastating environmental damage, it is essential that we improve every aspect of our use of coal.

The **Clean Coal Generation Act** will:

- a) Outlaw mountain top removal that is denuding mountains and choking streams across Appalachia. Limit surface mining to areas where "return to contour" is the rule. Ban all dumping of spoil into waterways.
- b) Stop serial offenders by steeply increasing fines on failures to protect the environment.
- c) Allow easier prosecution of those who use "shadow companies" to evade environmental and safety regulations in the coal industry.
- d) Repeal the "Clear Skies Act" and return to the previously passed Clean Air Act provisions. Coal-burning plants should no longer be allowed to expand under regulations that allow them to pollute the way they did 25 years ago. The act sets 2020 as the deadline for bringing all coal-burning plants into full compliance.



**An example of mountaintop removal for coal mining**

Currently, electricity prices for consumers are driven by ‘last kilowatt’ costs, which typically come from natural gas at a price significantly higher than coal production costs absent the critical issue of GHG remediation. Coal companies will be encouraged to adopt and share environmental "best practices." Such practices reflect the need for this industry not to pollute or otherwise despoil our lands, the air we breathe or the water we drink, and will be implemented in a consistent way so as to ensure a level playing field for the industry. Failure to implement CO<sub>2</sub> disposal will be met with levies on the electrical product so that it will be cheaper for coal-burning electricity producers to dispose of their CO<sub>2</sub> than to continue releasing it into the atmosphere.

### Benefits

The **Clean Coal Generation Act** ensures that America’s vast coal resources will be priced fairly, harvested wisely, processed safely and consumed prudently. Furthermore, this act preserves America’s landscape and keeps the American people safer from environmental destruction.

### Investment

The **Clean Coal Generation Act** will have a regulatory cost estimated at \$25 million per year.

## Act VII: The Wind Energy Production Tax Credit Act (“Harvest the Wind”)

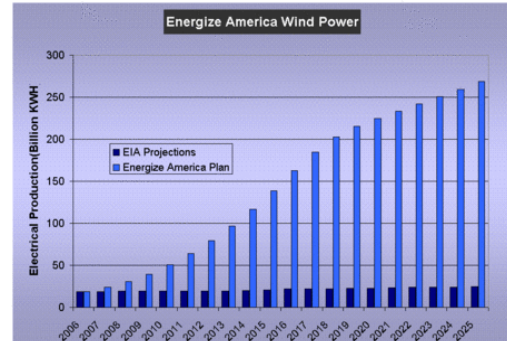
### Objective

To extend until 2015 the financial incentive currently provided to the wind power industry to enable this critical renewable energy source to achieve greater economies of scale, and to provide a reliable source of electricity that is not only as affordable as coal but is also both much cleaner and safer.

### Description

Good wind areas, which cover 6% of the contiguous U.S. land area, have the potential to supply more than one and a half times the current electricity consumption of the United States. Technology under development today will be capable of producing electricity economically from good wind sites in many regions of the country<sup>7</sup>. By 2007, the United States will have about 15,000 megawatts of installed wind-power capacity, compared to over 50,000 megawatts in Europe. Extending the existing production tax credit (PTC), scheduled to expire in 2007, will expand the installed base of wind power capacity to over 200,000 megawatts by 2020 by providing wind-farm entrepreneurs a stable and predictable market.

The **Wind Energy Production Tax Credit Act** will enable the American wind power industry to enjoy continued growth through the extension of the PTC through 2015. The PTC is indexed to inflation and is currently 1.9 cents-per-kWh. The PTC will continue to apply to all electricity generated with wind turbines over the first ten years of a project’s operations, as it has proven its ability, when in force, to spur the development of the industry by allowing projects to be financed by the private sector over the long term.



### Benefits

Wind power creates new American jobs and exportable high-value products. In a country mourning the loss of manufacturing jobs and aching for clean, low-cost energy, wind power offers benefits on both fronts. The **Wind Energy Production Tax Credit Act** will create over 100,000 new jobs through 2020, primarily in rural communities. Based on industry averages, each 10 megawatts of wind generation capacity generates a total of 80 person-years of new employment, including 40 full-time jobs during the construction phase and the balance during the operational life of the wind farm. Most operational jobs need to be located close to the wind farms and will thus provide much needed economic growth and revenue to many isolated rural areas. Farmers will also see a boost to their incomes via land leases for wind turbines that only slightly reduces their available farming land.

Wind-generated electricity will provide a reliable source of clean and affordable energy for many Americans by capping the price paid by the utilities purchasing their power, and eliminating price risk on fuel supply for the corresponding kWh. Wind power also eliminates millions of tons of carbon emissions that would otherwise be generated by burning coal. Furthermore, exporting high-value wind power systems will reduce the trade deficit and help to rebuild America’s manufacturing might.

### Investment

The **Wind Energy Production Tax Credit Act** is estimated to cost \$4 billion per year on average.

<sup>7</sup> [http://www.nrel.gov/wind/wind\\_potential.html](http://www.nrel.gov/wind/wind_potential.html)

## Act VIII: The 20 Million Solar Roofs Act (“Harness the Sun”)

### Objectives

1) To harness the power and heat of the sun to generate electricity from rooftop-mounted photovoltaic (PV) systems and, 2) to eliminate the bulk of the energy required for domestic hot water heating by placing solar-assisted heaters on the roofs of buildings across the US.

### Description

Massive amounts of clean and renewable solar energy reach the Earth every day. However, current methods for converting this energy into electricity are not yet cost-effective and their use, therefore, has not been widespread. Furthermore, hot water heaters in American homes are inherently energy-inefficient, and typically comprise the second-largest residential energy expense (30%) behind heating and cooling. By redesigning hot water heaters to capture the sun’s rays, Americans can reduce both their monthly electric bills and the amount of greenhouse gasses emitted into the atmosphere.

The **20 Million Solar Roofs Act** is composed of two essential elements: 1) the deployment of 10 million small-scale (<6kW), roof-top PV systems for homes and small businesses, and 2) the deployment of 10 million roof-top solar-based hot water heaters. The **20 Million Solar Roofs Act** will extend the current solar energy tax credit, set to expire in 2007, and to increase the tax credit from \$2,000 to \$6,000 for residential solar PV installations (\$1,000 per installed kilowatt of capacity). In addition, the act will maintain the \$2000 credit for homeowners and builders to defray the expense of migrating to roof-mounted water heating systems.

Commercial parking facilities that employ solar-powered hybrid vehicle recharging stations for five or more vehicles will be eligible for a \$5,000 tax credit per facility. Not only will these parking structures generate electricity from the sun, the shaded vehicles will be cooler throughout the day – reducing air conditioning needs, improving fuel efficiency and reducing greenhouse gases.



**Commercial solar-covered parking lot example**

In addition, the Federal Government will work with state and local agencies to develop standard building codes and approval procedures for removing barriers to effective roof-top solar programs – including, potentially, legislative remedies to covenants preventing homeowners from installing solar energy systems.

### Benefits

This act will generate 15,000 megawatts of new solar-powered electricity by 2020, more than 15 times the currently installed worldwide amount. The **20 Million Solar Roof Act** will enable Americans across the county to actively participate in the national transition to a new, clean energy future, and to directly enjoy some of *Energize America’s* benefits. In addition, the **20 Million Solar Roof Act** will create over 100,000 new manufacturing and service jobs in the solar industry, and will make the electric grid more resilient by providing localized energy in the event of a power failure.

### Investment

The **20 Million Solar Roof Act** will cost \$3 billion per year on average through 2020.

## Act IX: The Renewable Portfolio Standards Act (“Fair Everywhere”)

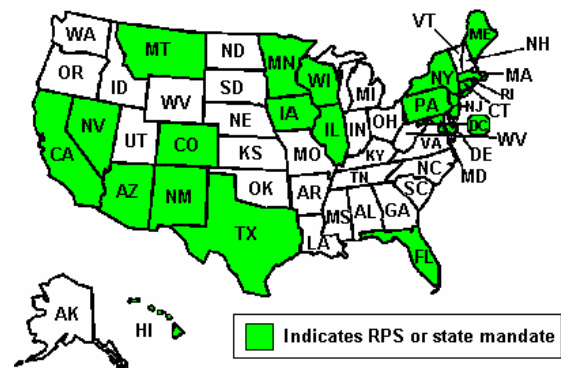
### Objectives

To create a fair, consistently regulated and competitive energy market that meets the strategic needs of energy security for the United States and dramatically reduces greenhouse gas emissions.

### Description

The Renewables Portfolio Standard (RPS) is a flexible, market-driven policy that can ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be recognized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources. By increasing the required amount over time the RPS can help make the electricity industry increasingly sustainable. Because it is a market standard, the RPS relies almost entirely on the private market for its implementation. Market implementation will result in competition, efficiency and innovation that will deliver renewable energy at the lowest possible cost. Renewable Energy Credits, or "RECs," are central to the RPS. A REC is a tradable certificate of proof that one kWh of electricity has been generated by a renewable-fueled source. Credits are denominated in kilowatt-hours (kWh) and are a separate commodity from the power itself<sup>8</sup>.

The **Renewable Standards Portfolio Act** will provide a consistent but flexible market framework for the nation’s future energy infrastructure. Nineteen states already mandate that small amounts of retail electricity sold within their borders come from renewables, and other states are considering similar requirements. With milestones set at 5, 10 and 15 years, and assisted by tradable Renewable Energy Credits, this act will require all but the smallest utilities to generate 15% of their electricity from renewable energy sources by 2020. Companies that generate power from qualifying renewable facilities will be issued RECs that they can hold for their own use or sell to others. Plants that fail to meet the targets will be forced to either purchase RECs from others that have exceeded their goals, or pay fines.



States with some form of RPS in place

### Benefits

The **Renewable Standards Portfolio Act** is a linchpin in the migration to a clean and abundant energy future, as it provides clear and compelling long-term objectives and opportunities for the renewable energy industry. This Act will spur significant private sector investment in renewable energies and will unleash much of the public financing required for Act 4 – **Community-Based Energy Investment Act**.

### Investment

The **Renewable Standards Portfolio Act** will cost an estimated \$50M through 2020, primarily in program oversight within the Department of Energy.

<sup>8</sup> <http://www.awea.org/policy/rpsbrief.html>

## Act X: The Federal Net Metering Act (“Get on the Grid”)

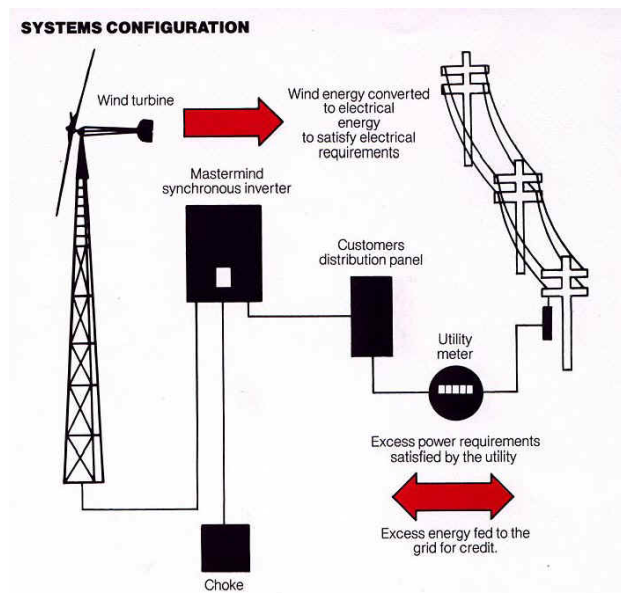
### Objectives

1) To provide a consistent and effective format for interconnecting excessive residential and business-generated renewable power to the electric grid and, 2) to help simplify the process and accelerate the benefits of participating in the **20 Million Solar Roof Act**.

### Description

Programs that allow homes which generate renewable energies to sell excess power back to energy companies during times of high generation exist in 39 states; however each state’s laws are different - in component requirements, in service territory definition, and in terms of cogeneration size limits. Current net metering laws are based on two different federal standards, and since the majority of states now implement interconnection standards, it is critical for the federal government to create national standards and consistent policies for grid interconnection.

The **Federal Net Metering Act** will provide standard national regulations to govern grid interconnection. This Act will help consumers to generate 5% of American electrical energy by 2020.



[http://www.windturbine.net/images/interte\\_config\\_big.jpg](http://www.windturbine.net/images/interte_config_big.jpg)

### Benefits

The **Federal Net Metering Act** will greatly simplify the process of connecting home and business-based renewable energy sources to the nation’s electric grid. This Act will spur industry investment, streamline system installations, reduce consumers’ electricity costs, and increase grid reliability and performance.

### Investment

The **Federal Net Metering Act** will have a purely regulatory cost, covered under Act XV.

## Act XI: The State-Based Renewable Energy Demonstration Act (“Green States”)

### Objectives

To facilitate the deployment of one privately-financed, high-visibility renewable energy project within each state by 2012.

### Description

By means of venture capital and a federal grant program, the **State-Based Renewable Energy Investment Act** will promote the construction of one major, large scale experimental renewable power project in each state. Municipalities can nominate their town or city based on local energy needs, available resources, and level of public support, and each state’s legislature will select a project by the end of 2010 based on consistent and fair criteria. Americans need to see renewable energy as economical and practical, and they need to see completed renewable energy projects so that they can enjoy its benefits. Highly visible projects will help build national confidence, validate new technologies, promote public education and develop cutting edge expertise that can provide American industries with high-value exportable products.

These demonstration projects can include wind, solar, biomass, biofuel, ocean thermal, geothermal and other energy sources, as determined by the local community. State or private funds will be matched by federal funds one-for-one up to \$100 million per state. In addition, the Federal government will provide \$1 million per year per Congressional District for demonstration projects for renewable energy and energy efficiency for ten years after passage of this act. These funds may be complemented by money raised on the markets through the **Community-Based Energy Investment Act** if the projects are commercially viable on the basis of the money provided under this act. The **State-Based Renewable Energy Investment Act** will be managed within the Department of Energy.



### Benefits

The **State-Based Renewable Energy Investment Act** will jumpstart the deployment of highly visible renewable energy projects nationwide. In addition to making matching funds available for selected projects within each state, this act will create strong awareness of, and demand for, renewable energy projects in communities across the country. The process of applying for matching funds will cause communities everywhere to seriously consider which renewable energy sources are appropriate for their needs, which specific projects make the most sense locally, and how to best move the public dialogue forward on the issues.

### Investment

The **State-Based Renewable Energy Investment Act** will cost an estimated \$11 billion through 2020.



## **Act XII: The New Energy Technology Demonstration Act (“Liquid Coal & Golden Glow”)**

### **Objectives**

To provide a venue for US government support for exploring major technology options for developing new, large-scale energy programs to support energy independence and reduce GHG emissions.

Two technologies fall within the **New Energy Technology Demonstration Act**:

- 1) *New Nuclear Power Technology Demonstration*: Intent is to build a single, privately-financed nuclear plant to determine the cost-effectiveness, safety and reliability of nuclear power based on modern designs and current technologies. In addition, the program will fairly and openly evaluate nuclear power’s costs and benefits versus modern renewable energy sources.
- 2) *Coal Liquefaction Demonstration*: Intent is to test the commercial viability of cleanly converting some of America’s vast coal reserves into synthetic oil. In addition, the program will help the US military meet its future fuel requirements.

### **1. Nuclear Power Technology Demonstration**

#### **Description**

Nuclear power has served an important role in American society over the past 50 years, from powering our nuclear stockpile, to generating roughly 20% of US electricity capacity, to fueling military ships, submarines and deep-space exploration vehicles. No new nuclear plants have been built in the US in more than 30 years, largely due to public fears of nuclear accidents, the growing but unresolved problem of nuclear waste disposal, extremely complicated review processes and questionable economics despite federal subsidies for liability insurance. Nuclear proponents and opponents alike have argued their cases for decades, often using incomplete, inaccurate or misleading data. Proponents claim that nuclear power is the best solution to deal with decreasing oil supplies and rising greenhouse gas emissions. Opponents claim that the operating risk, disposal dangers and true costs of nuclear power – and its byproduct nuclear weapons, make nuclear power inherently unsafe, environmentally unsound, fiscally unsound and politically dangerous.

The **New Nuclear Power Demonstration Project** will provide for fast-track construction and operation of a single, privately-financed, ‘next-generation’ nuclear reactor – assuming private financing can be secured. The Department of Energy, working with the Department of Defense, the nuclear power industry, and the various municipalities interested, will determine the size, location and technology to be used, with groundbreaking to be scheduled no later than 1 January 2009.

The federal government’s role in this regard will be to ensure that the siting and technology selection process are fair and based solely on meeting the needs of the American public for clean and safe energy, and that all costs and benefits are transparent and fully articulated to the public. While the Price-Anderson Act will remain in effect regarding insurance, an analysis will be done and published as to the potential fiscal impact of not having this Federal liability insurance on the fiscal viability of nuclear power plant operations – even with new technologies. In addition, the **New Nuclear Power Demonstration Project** will task the Department of Energy to work with the International Atomic Energy Agency to create new standards for the regulation and inspection of nuclear plants and to investigate and standardize methods of nuclear waste disposal. By the end of 2012 the Department of

Energy will provide to Congress its findings and recommendations on nuclear power's role in American society.

### **Project Benefits**

The **New Nuclear Power Demonstration Project** aims to replace much of the 'noise' and emotion in the nuclear power debate with objectivity and facts.

### **Project Investment**

The **New Nuclear Power Demonstration Project** will cost \$250 million in incremental program management within the Department of Energy through 2012.

## **2. Coal Liquefaction Demonstration Project**

### **Description**

The US has the world's largest coal reserves – which can be tapped to generate electricity and to ease the transition to a synthetic fuel-based transportation future. However, great care must be taken to ensure that the mining and processing of coal does not create vast environmental wastelands and increased greenhouse gas emissions. One promising approach to create synthetic fuels from coal is referred to as 'coal liquefaction.'

Coal liquefaction is the conversion of coal into a synthetic oil to supplement natural sources of petroleum, and has been practiced by South Africa and other countries for years. Coal liquefaction is seen by many as a necessary technology to replace oil before production of biofuels or fuel cells can be ramped up to meet the gap left by declining supplies of oil. Estimates of the cost of producing liquid fuels from coal suggest that domestic U.S. production of fuel from coal becomes competitive with oil priced at \$35/bbl, well above historical averages - but a point which is now viable with today's oil prices above \$70/bbl.

The **Coal Liquefaction Demonstration Project** will establish parameters for a public-private partnership to build and operate two full-scale, coal-to-liquid plants using state-of-art "scrubbers," carbon dioxide sequestration and other strict environmental controls. This act will be managed within the Department of Energy, which will coordinate with the Departments of Defense and Transportation. This act will provide \$100 million in federal matching grants and low interest loans for the two selected fast-track projects.

### **Project Benefits**

The **Coal Liquefaction Demonstration Act** will establish two full-scale plants that can produce up to 25,000 barrels of synthetic fuel per day, reducing our need for imported oil on a gallon-for-gallon basis. The US military – the world's largest user of oil products, can both benefit strategically from cheaper and more reliable fuel supplies, as well as leading by example in its transition to energy security.

### **Project Investment**

The **Coal Liquefaction Demonstration Project** will cost \$250 million by 2020.

### **Act Investment**

These two demonstration projects will cost an estimated \$500 million through 2012.

## **Act XIII: The Sustainable Energy Economic Prosperity Act (“Focused for Lasting Success”)**

### **Objective**

To provide strong federal government leadership in the long-term development of sustainable economic prosperity by establishing a Sustainable Development Agency to coordinate, evaluate, and promote activities related to achieving enduring energy-related prosperity for all Americans.

### **Description**

The Department of Energy will establish a Sustainable Development Agency (SDA), modeled after the United Kingdom’s Sustainable Development Commission<sup>9</sup>, which will help place sustainable development at the core of government policy. To achieve this, the SDA will

- Serve as a watchdog in the US government on sustainable development.
- Produce evidence-based public reports on contentious environmental, social and economic issues
- Draw on expert opinion to advise key policy-makers and stakeholders across government
- Serve as a coordination body on federal government activities related to sustainable development – from energy efficiency to environmental policy to health care
- group within a single agency all efforts currently deployed throughout the federal government, and help best practices emerge and become more widespread

The SDA will work on at least ten policy areas: energy, climate change, consumption, economics, education, energy, engagement, health, housing, regional & local government and transport. Most of the SDA’s staff and resources will come from restructuring existing government organizations to properly align functions and responsibilities. SDA staff will research and identify barriers to renewable prosperity that might exist in code, tax law, or otherwise. SDA will develop options for ameliorating these barriers. In bi-annual reports to Congress, the SDA will identify barriers to renewable prosperity and situations where Federal law, regulations, or tax code favors non-Sustainable Energy solutions over sustainable solutions and provide options for legislative remedy for these barriers.

Where the SDA has identified barriers that were regulatory and are changed within the Administration, these changes will be included in the biannual reporting requirements. On no less than an annual basis, the SDA will report on State/Local barriers to Sustainable Energy Economic Prosperity and, as well, identify State/Local advances that facilitate and foster Sustainable Energy Economic Prosperity. The SDA will work with all other agencies of the US government to promote Sustainable Energy Economic Prosperity as a core element in US government processes and functions. SDA will also work with all other US Government agencies to emphasize Sustainable Energy Economic Prosperity as a core element of US foreign aid packages to foster sustainable energy progress throughout the world.

### **Benefits**

The Sustainable Economic Prosperity Act, through formation of a Sustainable Development Agency, will provide a means to maintain sustainable energy related development – sustainable economic prosperity for all Americans – at the core of US government policy-making and governance.

### **Investment**

The Sustainable Economic Prosperity Act will cost \$250 million per year.

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<sup>9</sup> <http://www.sd-commission.org.uk/index.php>

## Act XIV: Carbon Reduction Act (“Atmosphere Stability”)

### Objective

To significantly reduce the amount of carbon dioxide released into the atmosphere.

### Description

Leading experts believe that average temperatures across the world will climb by several degrees over the coming century. Icecaps and glaciers are already melting, sea levels are rising, and extreme weather events are occurring more frequently. Some portion of this change comes from burning hydrocarbons and producing carbon dioxide (CO<sub>2</sub>). Moreover, burning hydrocarbons causes health problems for many people. By themselves, the potential economic costs of these health effects and a changing climate run into the trillions of dollars.

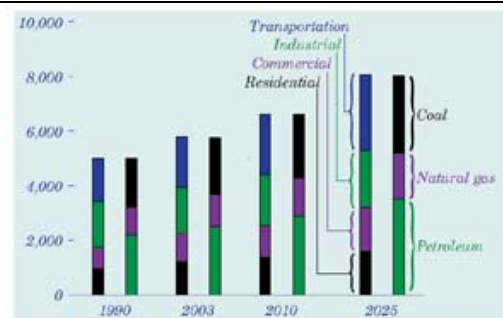


Figure 3 - Projected US Carbon Dioxide Emissions by Sector & Fuel, 1990 - 2025, million metric tons (Source: EIA 2006)

The **Carbon Reduction Act** will apply to coal-fired power plants and other large industrial users that generate significant amounts of greenhouse gases. This act will regulate carbon dioxide (CO<sub>2</sub>) as a pollutant, just as the Clean Air Act has imposed gradually more stringent guidelines for other pollutants. By 2020, all coal-fired power plants and other coal burners must be **operating at 30% reduced CO<sub>2</sub> levels** over today’s baseline, and by 2040 all CO<sub>2</sub> emissions from these producers shall be reduced by 50% or more through both scrubbing and sequestration technologies.

The **Carbon Reduction Act** will establish guidelines for tradable CO<sub>2</sub> certificates that can be used to motivate the market to achieving these objectives. These certificates, already traded on a voluntary basis today, would allow producers who invest in advanced clean coal technologies to sell their excess certificates regionally to less-advanced producers.

To ensure that transforming coal into synthetic fuels represents an actual improvement in CO<sub>2</sub> production over burning petroleum products, all coal liquefaction or gasification plants will be required to use sequestration or scrubbing from the outset.

At the same time, the act will call for the Department of State and Department of Energy to reengage the world community on global climate change. America will rejoin and lead international efforts to find remedies for the ill effects of climate change, and will ensure that worldwide efforts are fair, thorough and do not put U.S. industry at a competitive disadvantage.

### Benefits

The **Carbon Reduction Act** will reduce overall US CO<sub>2</sub> emissions by 30% by 2020 over currently anticipated levels, and by 50% by 2040.

### Investment

The **Carbon Reduction Act** will cost \$100 million in incremental program management within the Department of Energy and Department of State through 2020, with the cost for all CO<sub>2</sub> reduction equipment and related costs falling to the polluting entity.

## **Act XV: Federal Energy Policy Enforcement Act (“People’s Energy Watchdog”)**

### **Objective**

1) To provide fair, reliable and consistent interpretation, application and enforcement of energy-related rules and regulations, and 2) to provide the necessary administrative capacity to execute and enforce all the Acts under ***Energize America***.

### **Description**

***Energize America*** calls for a broad spectrum of change and innovation across the energy industry and society. Specialized agencies like the Federal Energy Regulatory Commission, the Environmental Protection Agency, the Nuclear Regulatory Commission and the Securities and Exchange Commission can do their job and enforce these acts only if they have the proper support, political and material. The **Federal Energy Policy Enforcement Act** will increase these agencies' capacity to detect and react to fraud and compliance failures, heighten their ability to punish violators, and ensure non-partisanship by proposing new rules for the nomination of their top officers. It will provide the necessary funding for the specific agencies or teams which are created as part of the other Acts under ***Energize America***.

The **Federal Energy Policy Enforcement Act** will double the budgets in real terms from their current levels over the next 15 years in order for these agencies to cope with the workload required to implement the ***Energize America*** legislative agenda, with dedicated and specially trained agents in each agency.

### **Benefits**

The **Federal Energy Policy Enforcement Act** will reduce bureaucratic infighting, streamline many policies and procedures, and provide for a consistent national framework to resolve energy-related issues.

### **Investment**

The **Federal Energy Policy Enforcement Act** will cost \$500 million in incremental program management within the Department of Energy and related agencies through 2020.

## **Act XVI: National Energy Efficiency & Conservation Act (“EnergySMART”)**

### **Objective**

To create an increasingly energy-aware American culture that values energy efficiency and conservation.

### **Description**

The quickest, easiest and most cost-effective way to reduce both our dependence on fossil fuels and greenhouse gas emissions is to reduce energy consumption through conservation and improved efficiency. Conservation, which reduces energy-consuming activities, is separate from and highly complementary to, efficiency, which involves using less energy for any given task. While significant efficiencies have been introduced into the market in the past two decades, the federal government has failed to provide the strong leadership necessary to champion energy conservation and efficiency.

The **National Energy Efficiency & Conservation Act** will:

- a) educate American consumers on the needs for and benefits of wise energy use,
- b) provide educational programs for elementary and secondary schools,
- c) provide incentives for businesses and consumers to optimize energy consumption, and
- d) create a multi-generational awareness of the need for conservation and efficiency.

The **National Energy Efficiency & Conservation Act** will also create ‘Energy SMART’ centers in each state which will provide outreach services to consumers on a range energy issues – from simple tasks such as winterizing homes to more complex tasks such as designing buildings to take advantage of natural light and heat. These centers will regroup the efforts currently run in sometimes ad hoc fashion by various local and federal agencies, and use coherent information packages that allow all Americans to make the maximum out of the various incentives under the ***Energize America*** program. This act will also create national standards that increase over time, for appliances and consumer electronics so that consumers can get accurate, easy-to-understand information about the true energy costs of their purchase decisions

In addition, The **National Energy Efficiency & Conservation Act** will require that all new federal buildings, as well as state and local government buildings constructed with federal assistance, be designed and built to a minimum standard using the ‘Leadership in Energy and Environmental Design’ (LEED) standards. Construction using these standards will be eligible to funding under the Community-Based Energy Investment Act. The voluntary ‘Energy Savings Performance Contract’, which allows private contractors to help federal agencies improve the energy efficiency of their facilities, will become mandatory.

### **Benefits**

By 2020 the **National Energy Efficiency & Conservation Act** will create a culture of increasingly energy-aware Americans that consume energy responsibly, design products and buildings wisely, and that understand the strategic value of energy to the US.

### **Investment**

The **National Energy Efficiency & Conservation Act** will cost \$50 million in incremental program management within the Department of Energy and related agencies through 2020.

## Act XVII: Home Efficiency Act (“C the Light”)

### Objectives

1) To provide incentives for homeowners and landlords to make their dwellings more energy efficient, and 2) to create broad public support for energy efficiency by delivering tangible short-term benefits.

### Description

The largest monthly household operating expenses are typically heating and cooling, hot water heating, and lighting. Therefore, the quickest and most effective way to reduce energy consumption, and to reduce consumers’ monthly energy costs, is to ensure that homes and apartments are as energy-efficient as possible. In addition, incandescent bulbs waste up to 90% of their energy as heat, making them highly inefficient sources of light, especially compared to modern technologies such as high-intensity light emitting diodes (LEDs) and compact fluorescent lights (CFLs).

The **Home Efficiency Act** includes two provisions – tax credits for residential energy efficiency improvements, and the distribution of two compact fluorescent lamps via coupons from local utilities to each American household. Homeowners and renters will be encouraged to replace their two most frequently used bulbs and compare the difference in electricity usage the following month. The **Home Efficiency Act** provides each household with clear and compelling proof of the value of energy efficiency, as well as a highly visible marketing platform that will increase program awareness and citizen participation.

The **Home Efficiency Act** will also provide a tax credit up to 50% of the cost of energy-related upgrades, based on geographically-specific standards. Examples of qualified repairs and upgrades include:

- a) Insulation (50% tax credit),
- b) weather-stripping (50% tax credit) and
- c) energy-efficient windows (25% tax credit).

In addition, the **Home Efficiency Act** will formalize the procedures allowing energy projects that help lower the energy consumption of Americans under the **Community-Based Energy Investment Act** to share the benefits of such savings fairly between the homeowner and the program investor. Homes purchased with FHA or FmHA loans will be required to meet increasing energy efficiency standards. Low cost loans will be provided through these agencies to help finance necessary upgrades, ensuring that the lower economic end of the home-buying spectrum will not be disadvantaged through homes that are cheaper to buy but costly to heat and cool. Mortgage lenders will be required to include likely utility costs in the calculation of housing affordability, and to share this information with prospective home buyers.

### Benefits

By 2020, the **Home Efficiency Act** can reduce energy consumption in the residential sector by 20%. Furthermore, this act will ensure that the monthly costs for heating, cooling and lighting residential dwellings are minimized.

### Investment

The **Home Efficiency Act** will cost \$10 billion through 2020.

## **Act XVIII: Demand Side Management Act (“Real Time Energy Pricing”)**

### **Objective**

1) To provide incentives for utility companies to reduce energy consumption, and 2) to provide users with timely and actionable information on the cost of their electricity.

### **Description**

Utilities are often in the best position to reduce both aggregate and localized energy consumption for businesses and consumers alike. However, under the current regulatory framework where ‘more income’ is derived mainly from selling ‘more power’, utilities are not financially motivated to implement meaningful demand reduction solutions for their customers. Furthermore, business and residential customers often lack the detailed information and tools necessary to make informed decisions on their energy consumption, especially during times of supply constraints such as a prolonged heat wave in the summer.

The **Demand Side Management Act** will decouple utility profits from their traditional role of energy generation, transmission and distribution, and will allow utilities and businesses to profit from energy savings that they create for their customers. Elements of the act include:

- a) Tax credits for energy audits and energy-saving investments on behalf of customers, up to 50% of the net energy saved over five years,
- b) Accelerated depreciation for all qualifying energy efficient and renewable energy investments,
- c) Accelerated depreciation of the entire project for buildings that meet the highest ‘Leadership in Energy and Environmental Design’ (LEED) standards.
- d) a requirement that an at least 2.5% of all utility revenues be invested in Demand Side Management programs, not including investments in renewable energy sources.

This will include creating programs for home and facility energy audits of no less than once every ten years. With a financing program to aid homeowners and commercial enterprises follow-up on recommendations from those audits.

### **Benefits**

By 2020, the **Demand Side Management Act** will reduce will reduce electricity consumption by 20%. Furthermore, this act will provide a competitive, market-based framework that allows utilities to create energy-savings opportunities for customers, and for customers’ businesses to make informed and timely decisions on how, where and when they consume electricity.

### **Investment**

The **Demand Side Management Act** is estimated to cost \$25 billion through 2020.



## **Act XIX: Telecommuter Assistance Act (“Work Smart”)**

### **Objective**

1) To provide incentives for companies to encourage employees to work from home part- or full-time, thus reducing the need for home-to-work commutes.

### **Description**

Many job positions, or a high proportion of tasks in many jobs, require no more than access to a computer and a phone and thus the location of the employee is irrelevant to its performance. If only a fraction of jobs now concentrated in city centers or business areas were moved to workers’ homes, it would significantly reduce the number of trips made between home and work, the corresponding fuel consumption and gridlock.

The **Telecommuter Assistance Act** will establish a tax credit for companies that use telecommuting to reduce employee travel. The maximum credit will be set at \$2,000 per year for a full-time employee who telecommutes five days a week. This will be pro-rated on a \$400-a-day basis for employees averaging fewer than five days a week telecommuting. To receive the credit, companies must agree not to outsource the credited position to an overseas firm for a period of at least five years. In addition, the act will impose a return to older, more relaxed IRS rules to allow telecommuting workers to claim a portion of their house as an office for income-tax purposes. Funds invested to provide employees with a computer and network connection at home will benefit from favorable depreciation rules for tax purposes.

### **Benefits**

By 2020, an estimated five million full time job equivalents will have switched to telecommuting, with fuel savings would amount to 200,000 barrels per day of oil (or \$4 billion at current prices). Companies would also benefit from lower office-rental requirements, and all Americans would benefit from less gridlock.

### **Investment**

The **Telecommuter Assistance Act** is estimated to cost \$5 billion per year on average through 2020.

## **Act XX: Energy Security Funding Act (“Paying the Piper”)**

### **Objective**

To provide the financing necessary to implement and support the migration to U.S. energy security.

### **Description**

Achieving US energy security by 2020 will be difficult and require both financial and political discipline. However, this effort is to ensure our national security, maintain our economic wellbeing, and protect the American way of life. Current energy and tax policies are ineffective, frequently counterproductive, and are poorly aligned to meet this country’s growing energy needs in the 21<sup>st</sup> century. **Energize America** provides a comprehensive plan that will ultimately save the US economy, and US consumers, tens of billions of dollars annually. The **Energy Security Funding Act** provides the funding framework for this crucial effort in a fair and consistent manner and includes the following:

*Energy Budget Transparency Act* - This act will mandate a yearly audit of all energy related federal expenses or tax incentives, to be disclosed publicly. Showing how energy is subsidized will make taxpayers more conscious of the costs of various energy sources and will help in the transition to renewable energies.

*Energy Subsidy Reallocation Act* – This act will reallocate federal funds away from mature sectors of the energy industry and away from hydrocarbon production. The most egregious subsidies to the oil sector will be transferred to support the nascent industries in the renewable energy sector that will provide sustainable energy, and high tech jobs, to Americans.

*Oil & Gas Royalty Enforcement Act* - This act will provide increased enforcement of existing oil and gas royalty agreements. Initial estimates are that over \$35 billion is owed to the federal government through inadequate and inaccurate reporting of oil/gas production on federal lands. Full collection will provide \$3 billion per year in additional revenue.

*Windfall Profits Royalty Act* - This act will restructure royalty payments for oil/gas and other extractive industries on federal lands to provide increased percentage royalties as commodity prices increase. For example, oil royalties will step up at \$50 per barrel and increase again, in percentage terms, above \$75 per barrel. As well, a tax of \$1 per barrel will be applied against all imported oil. This measure will provide a total of \$5 billion per year.

### **Benefits**

The **Energy Security Funding Act** will fully pay for the twenty Acts of **Energize America** and will enable Americans to achieve energy security by 2020, and will pave the way to reach energy independence by 2040. Americans will also benefit by saving hundreds of billions of dollars annually in energy costs and by dramatically reducing GHG emissions. At its core, though, the **Energy Security Funding Act** will help keep America from fighting future wars over access to and control of oil in the coming decades.

### **Costs**

The **Energy Security Funding Act** will cost an estimated \$10 million through 2020, primarily in program management costs within the Department of Energy and Department of Treasury.