



Big Ideas

The Energy Security for American Families Initiative

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Today, we spend three times as much on gasoline as we did six years ago. Although most of us are feeling the pinch, those hurt the most by increased energy costs are working families who struggle to buy gas for their cars and to heat and cool their homes. This energy crisis will not be solved with one-shot fixes like gas tax holidays or stimulus checks. While high energy prices appear to be part of America's future, few of the 70 million American families making less than \$60,000 a year are prepared for this new reality.

The Energy Security for American Families initiative will give moderate-income families the power to control their energy costs over the long term. Offering a combination of vouchers, low-interest loans, and market-based incentives, ESAF will enable working families to invest in energy-efficient cars, homes, and commutes. These families will be able to save money, year after year, gaining economic security.

Energy costs are a drain on the economy. Channeling money toward investments in energy efficiency will not only help working families but also create jobs while reducing energy demand, pollution, and greenhouse gases. Energy subsidies are short-term palliatives for high prices, but the ESAF initiative represents a long-term investment in the health and resilience of the American economy.

High Energy Prices and Working Families

The United States needs a strategy to help working families adjust to the new reality of high-priced energy. After two decades of cheap energy, Americans are struggling to pay monthly gasoline bills that have risen from \$18 billion in July of 2003 to \$50 billion in July of this year. Increased energy prices have hurt the economy as a whole, squeezing the credit and housing markets, depressing auto sales, and raising unemployment. They have had a negative multiplier effect on the economy, increasing inflationary pressures and shifting spending, so that money once spent on consumer goods is now going to pay foreign oil producers. Growing global demand for energy, coupled with a cramped supply infrastructure, means that high energy prices are here to stay, and they require a thoughtful policy response.

Hit hardest by high energy prices are the 60 percent of American households making less than \$60,000 a year. These families spend more of their income on and use proportionately more energy than wealthier Americans.

On average, moderate-income families commute further to their jobs than more well off workers, so that even when fuel prices are lower, they spend a higher percentage of their income on gasoline. This is especially true of working families making \$15,000-\$40,000 a year who spent as much as 9 percent of their income on gasoline in 2006, compared to the national average of 4 percent. Now they are stretched even further: this year's steep price hikes mean that they will spend between 10 percent and 14 percent of their income on gasoline alone. For rural families, who drive nearly 10,000 miles a year more than urban households, the cost is even higher.



America needs a strategy to help working families adjust to the new reality of high-priced energy. As a policy option, shifting dollars away from energy bills and toward efficiency investments also offers dividends to the rest of the economy.



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On the home front, moderate- and low-income families are again at an energy disadvantage. Poor insulation and old equipment cause lower-income families to spend about 40 percent more per square foot to heat their homes than middle-income families. Moderate-income families are also at a disadvantage when it comes to buying heating oil. While higher-income families can "lock in" lower rates by buying oil in advance, many working families fill their tanks only when they have cash. For some in the Northeast, the combined bite of transportation, utilities, and heating oil is an enormous 40 percent of household income.

Fuel prices are reducing the standard of living for this majority of U.S. families. A 2008 survey by the National Energy Assistance Directors Association found that 70 percent of moderate- and lower-income families said that energy prices had caused them to change their food-buying habits, and another 30 percent said that they had cut back on medicine. Utilities have recently become more aggressive in collecting unpaid bills. An unprecedented 8 percent of U.S. households had their utilities cut off for nonpayment during the past 12 months. If energy prices continue at current levels, they may begin affecting employment. According to the NEADA survey this past spring, 6 percent of respondents making less than \$60,000 a year said high energy prices had caused them to quit their jobs.

Increasingly, moderate-income families find themselves in an "energy straitjacket" -- despite being squeezed by high energy costs, they are unable to reduce the amount of energy they use. Often living paycheck to paycheck, they lack the capital to invest in a more efficient vehicle or furnace, or in a home closer to their work, even when they know it would ease their monthly budget.

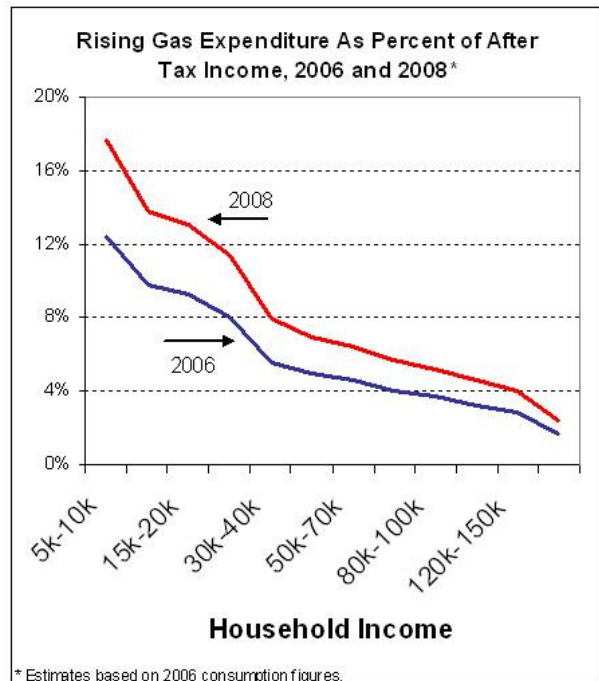
The credit crisis has added to their troubles by further limiting their ability to borrow money. For example, the subprime auto lending market is now experiencing the highest foreclosure rates in 19 years, and lenders are cutting back on auto loans. People who can't qualify for loans are now forced to buy cars at "buy here, pay now" lots, where some dealers impose "finance charges" equivalent to interest rates of as much as 360 percent.

Another component of the crisis is the change in the pricing of fuel-efficient vehicles. In the past, used "economy" cars were relatively cheap. But the increasing size of American vehicles over the past decade, combined with current high gasoline prices, has changed the used car market. Used fuel-efficient cars are now relatively expensive compared to gas guzzlers, which may be the most affordable cars for lower-income buyers. This cruel trick of the market means that lower-income families have to spend even more of their income on gasoline. While economically rational decisions regarding the purchase of an automobile, commute length, and home energy efficiency may be an option for those in the higher-income brackets, moderate-income households do not have the same range of choices or access to capital.

For most, going without a car is not an option. Nine out of ten American workers own cars, but for lower-income earners, a car is essential. Owning a reliable vehicle has been shown to be more important for high school dropouts than earning a GED in getting and keeping a job, and on average, those with cars made \$1,100 more per month than those without.

Conventional Fixes Don't Address the Real Problem

The energy crisis facing working families has three components: working families are more dependent on energy than wealthier families; increased energy costs eat up a higher percentage of their income; and high energy costs threaten their economic stability and standard of living. Market forces have exacerbated the first two problems, neither of which the government has addressed. The government has attempted to address the third problem by means of direct or indirect emergency energy payments.



However, existing government programs are stretched beyond their capacity to deliver emergency funding. The Low Income Home Energy Assistance Program (LIHEAP) is the main federal program providing emergency funds for heating for low-income families, but it is currently funded at half the level it was in 2006, despite the fact that energy prices have soared and applications for assistance in some states have risen by as much as 79 percent.

Proposed solutions to alleviate the pain of high energy costs have fallen short. Republicans have suggested gas tax holidays, while Democrats have favored \$1,000 subsidy checks -- but neither addresses the underlying problems facing the working families disproportionately affected by volatile energy prices. Gas tax holidays encourage more gasoline use and have been shown to create larger profits for gasoline marketers and minimal price reductions for buyers. Stimulus checks temporarily ease family finances, but they don't help families change their consumption or spending habits. Early studies of how families spent this spring's \$600 tax rebate reveal that they spent more than half on gasoline, food, and paying down credit card debt. These short-term measures also strike many voters as gimmicky, election-year ploys. And they are effectively government overrides of market forces that may actually delay the kind of investment and behavioral changes necessary to cope with higher energy costs in the long run.

Investing in Energy Efficiency Benefits the Economy

The only way to overcome the unique energy disadvantages moderate-income families face is to help them invest in energy-efficient cars, appliances, and home retrofits. Reducing energy consumption pays for itself in energy savings, and by making homes more comfortable. Sealing air leaks and adding insulation in the attic and basement can reduce heating and cooling bills by 20 percent. Replacing a pre-1980 refrigerator with an Energy Star model can save nearly \$238 in electricity annually. Installing a programmable thermostat can reduce energy costs by \$180 a year. Nationwide, pilot energy efficiency programs have reduced home energy consumption by an average of 23 percent. In California and New York, efficiency programs save families \$1,000 and \$600 a year, respectively. These savings act like a stimulus program, year in and year out.

As a policy option, shifting dollars away from energy bills and toward efficiency investments also offers dividends to the rest of the economy. Energy spending is a drain on the economy, yielding fewer jobs than other types of spending. By contrast, every dollar spent on energy efficiency returns two dollars in benefits to the state, according to the California Public Utilities Commission. Energy efficiency investments create jobs in the construction and auto industries. Residents also see other, less tangible, returns, including cleaner air and less demand on the power grid, which means fewer brownouts. A reduction in the demand for energy resulting from a coordinated strategy between the United States and other oil importers may also gradually put downward pressure on world oil prices.

Helping working families reduce their dependence on fossil fuels is a good investment strategy for America. Moreover, moderate-income families appear to be willing to adopt energy-efficient and energy-saving habits at faster rates than other parts of the population. Working families motivated by a desire to reduce their energy bills take public transit at two to four times the rate of more affluent families. They also report closing off parts of their homes, and keeping their living spaces either hotter or cooler than they feel is safe. Thus, targeting this group of households for energy efficiency investment may yield larger financial and social dividends than targeting other sectors of the economy.

How ESAF Would Promote Energy Efficiency

The Energy Security for American Families initiative would provide vouchers, low-interest loans, and state-run incentives to households making less than \$75,000 a year to invest in energy efficiency. The centerpiece of the initiative is a federal government guaranteed loan program that would enable qualified lenders to make low-interest loans to moderate-income families for the purchase of energy-efficient autos, appliances, and home renovations. In addition, a system of vouchers and state-based incentives would provide market-sensitive "nudges" to influence purchasing decisions. To create flexible transportation options beyond private cars, ESAF would reward those who leave their cars in the garage with a yearly voucher, while providing seed money to both the public and private sectors to develop creative alternative transit programs.

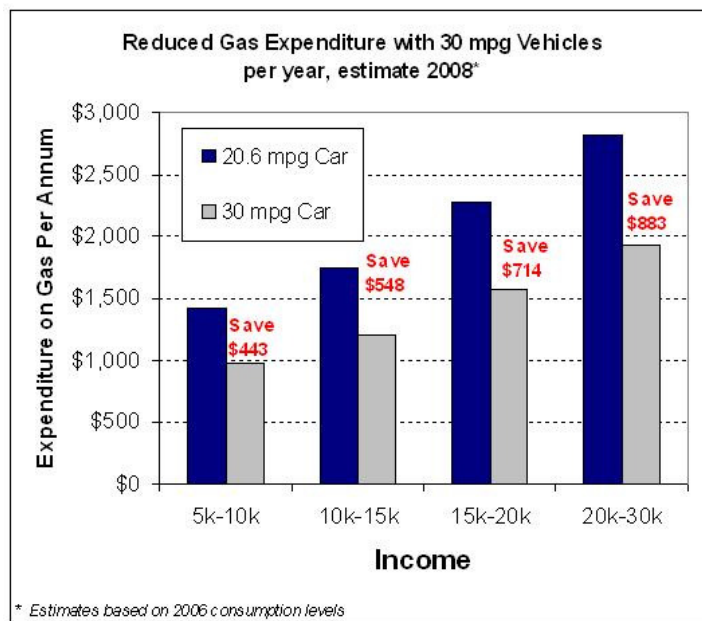
Automobile Vouchers and Loans. Private cars and trucks consume 18 percent of the energy we use and the lion's share of the petroleum we burn. The average fuel economy for new cars and trucks is now just 20 miles per gallon (mpg). The fastest and easiest way to reduce the amount of petroleum we consume right now is to remove the vehicles with the worst gas mileage from the road and replace them with more efficient cars. Toward that end, ESAF would offer a \$1,000 voucher, low-interest auto loans and state-run "clunker credit" programs to help families making less than \$75,000 a year buy a car that gets 30 mpg or more.

This sort of government investment in private cars is far from unprecedented. The \$3,500 tax rebates offered to buyers of Toyota Prius hybrids were essentially gifts to buyers who made more than \$100,000 a year and drove less, on average, than moderate-income workers.

The cornerstone of the proposed auto program is very low interest loans -- backed by a government guarantee but provided by private lenders -- for cars that get 30 mpg or more. Loans would be structured like Small Business Administration 7A loans, with the federal government offering a guarantee on most of the value of the loan, thus reducing the risk to authorized lenders. Funds could be directed to favored lenders, such as credit unions, which have a track record of making auto loans to moderate-income car buyers. While the standard auto loan rate is 6 percent, the subprime rate is usually above 17 percent and sometimes above 30 percent. Because ESAF loans would be guaranteed by the federal government, interest rates should be between 2 percent and 5 percent for a loan of up to \$15,000.

Getting a loan would be easy. Buyers could apply for the loans online and receive both a notice of financing from a local bank or credit union, as well as a list of cars eligible for purchase or trusted dealers in their area. Some of the country's 8,500 credit unions offer similar services that could be expanded. The loans would include some limits to discourage predatory lending or sales. For example, used cars would not be financed at more than Blue Book value. The easy availability of low-cost capital may in itself discourage some predatory lending.

ESAF would also offer money to states to administer clunker credit programs. Many states, including Texas and California, already operate such programs, which pay owners of old cars to turn them in to salvage yards, where they are dismantled. Combined with the low-interest loan program, a clunker credit program would be an effective way of getting less efficient and dirtier cars off the road. The advantage of leaving this to the states is that they would be able to adjust to local market conditions and be creative in finding the best mix of carrot and stick. Some states, for example, might wish to include some form of payment for auto dealers, or a "fee-bate" scheme, while others might wish to issue bonds against the federal income and buy back cars rapidly in the first few years.

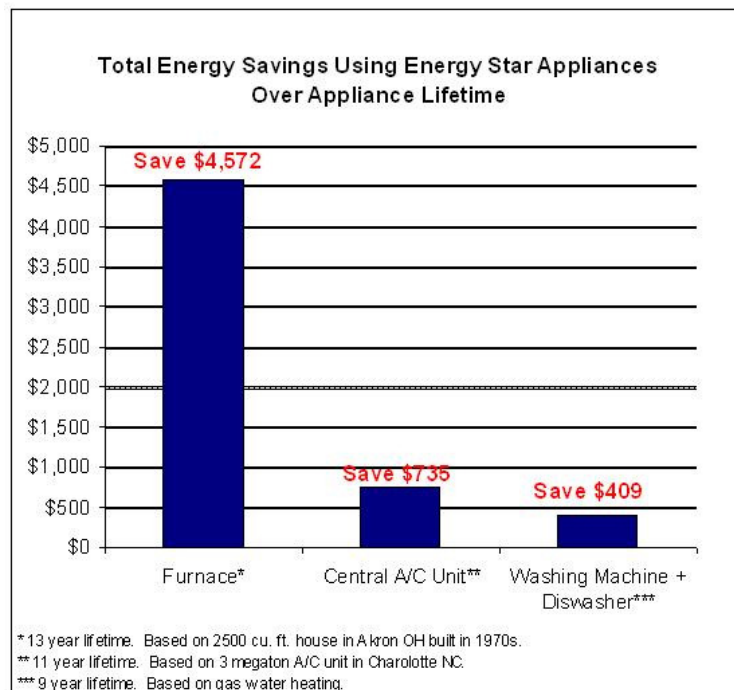


A new car can dramatically improve the finances and lives of working families. One auto loan program in New Hampshire, Bonnie CLAC (Car Loans and Counseling), has helped a thousand drivers get lower-interest loans for new cars, reducing their auto payments and maintenance costs. For some households, the savings in fuel have been enormous: One couple made daily commutes of 130 miles in a 1998 Ford Explorer that got 10 miles to the gallon. When they replaced the Explorer with a Honda Civic, their monthly spending on gasoline fell from \$800 to \$200.

Relatively small shifts in market behavior could have a profound effect on U.S. energy consumption. For example, the scrappage rate for light trucks, SUVs, and vans is now around 5 percent a year. Bumping that to 8 percent and encouraging those 8 million households to buy a vehicle that gets 30 mpg would reduce U.S. gasoline consumption by 4.44 billion gallons a year, or 3 percent of total usage. On a macro level, the U.S. economy would save \$15.5 billion on fuel if gasoline were \$3.50 a gallon. A rural family that traded in a 17 mpg pickup truck for a fuel sipper could save \$2,500 a year on gasoline alone. The program would also assure auto makers that there will be long-term demand for fuel-efficient vehicles, creating a market incentive for them to create more vehicles with higher fuel economy than CAFE standards currently require.

Home Efficiency Vouchers and Loans. American homes consume 21 percent of the energy the United States uses. The average household spends nearly \$2,000 on energy and produces twice the greenhouse gases of an average car. Modest investments in energy efficiency could reduce home energy bills (and emissions) by a fifth.

Toward that end, ESAF would offer a \$1,000 voucher to families with income under \$75,000 to spend on immediate weatherization or appliance upgrades; underwrite a home equity loan program offering low-cost loans for energy efficiency remodels and efficient appliances; and support a state-run incentive program to encourage cooperation between utilities and homeowners.



The voucher could be issued in the form of an electronic debit card that could be used to buy energy-saving supplies and appliances that have been approved as cost effective by the Environmental Protection Agency's Energy Star program. In states with low-income weatherization programs, the voucher could be put toward a full retrofit. Obviously, certain measures would need to be put in place to prevent fraud and waste, but ideally state regulators, utilities, and appliance dealers would offer packages combining energy audits, approved appliances, and cost-effective retrofits.

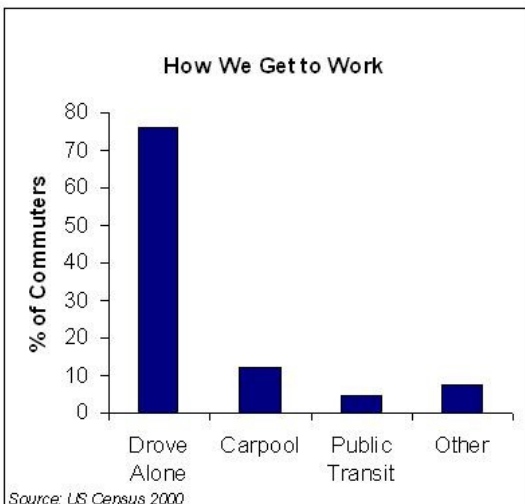
ESAF would task Fannie Mae or a comparable institution with providing low-interest home equity loans and mortgages for energy efficiency home improvements. In the 1990s, Fannie Mae had an effective energy efficiency mortgage program that proved that investing in efficiency improved families' ability to pay back their loans. ESAF would task Fannie Mae with renewing that program and making it accessible to all moderate-income borrowers. In addition, owners of rental properties could be offered loans to upgrade the efficiency of their properties. (This could be a requirement for Section 8 housing, which receives government subsidies.) ESAF home equity loans would include a government guarantee on capital, so that interest rates could be very low.

As with the auto program, applying for an ESAF loan should be easy and fast. Families could initiate the process by

applying online and having their request routed to nearby banks that would follow up. Once given a loan, families could purchase Energy Star appliances from approved dealers, or contract with a bonded contractor to do construction work on their homes.

Utility companies are in an ideal position to help homeowners perform energy audits and make decisions about efficiency purchases. Utilities have data on all homes in the area they serve, knowledge of energy demand patterns, and in some states already collaborate with households to reduce energy use. When proper incentives are in place, utilities profit by helping to reduce energy demand because they can avoid investing in power plants and transmission lines. ESAF would require state regulators to create incentives and rules so that utilities actively reduced energy demand. Ideally, utilities would partner with ratepayers, helping them figure out how to reduce energy demand by 20 percent and rewarding households that met the reduction targets by lowering their rates.

Innovative Transit. Three-quarters of Americans commute to work alone in their cars, 5 percent take public transit, and 15 percent commute by car pool, in van pools, by bicycle, by telecommuting, and on foot. If just 3 million more Americans left their cars in the garage, we would save a billion gallons of gasoline a year. And the \$3.5 billion those drivers would have spent on gasoline would be directed toward more productive spending. One of ESAF's goals would be to develop ways other than by private car and mass transit to get people to work -- call it "mini" transit or flexible transit.



Toward that end, ESAF would give all workers who don't drive themselves to work a \$1,000 tax rebate every year to offset their transit costs. We already give drivers tax breaks of nearly \$1,000 a year to offset the cost of parking, but by leaving their cars at home, non-car commuters do society several favors. They reduce road congestion and therefore commute times for everyone else; they reduce pollution and greenhouse gas emissions; and they reduce petroleum demand, which may make gasoline cheaper for other drivers. The voucher -- which could be delivered to recipients' bank accounts as a tax refund -- would reward non-drivers for making a decision that benefits everyone. It would replace the \$1,380 tax break the IRS already offers on employer reimbursements for carpooling. (The paperwork and rules for that credit are so cumbersome that few take advantage of it.) Fraudulent claims could be discouraged by requiring written assurances from employers or other proof that applicants commuted by alternative transit.

To encourage new ways of getting to work, ESAF would also provide start-up funds to local governments, businesses, and nonprofits to help them design innovative, self-supporting, mini transit programs. Such flexible transit programs might include neighborhood car sharing, casual carpool programs, employer-based carpool programs, van pools, and jitneys. Ride sharing can be made easy, convenient, and safe through the use of mobile phones, GPS devices, and transportation affinity networks (a Facebook for carpoolers). It is even possible to pay drivers by using cell phones to transfer funds. With nurturing, these programs could fill in the considerable gaps in our mass transit system.

Van pools are only one means by which private companies could help promote a public transit solution to our energy problems. Despite large subsidies, city busses may actually use 25 percent more energy per passenger mile than a private car, according to the Oak Ridge National Laboratory. A van pool, on the other hand, removes an average of six vehicles from the road and uses a third as much gasoline per passenger mile as a passenger car. Large employers of moderate-income workers, such as Wal-Mart, could work with other employers and local government to create van pools to carry their workers to and from work, eliminating the need for employee parking spaces and easing scheduling problems caused by workers with transportation problems. Cities would benefit from reduced congestion, more readily accessible jobs, and less pollution. Workers would benefit because they would not need to shoulder the cost of owning a car and might be able to count on more regular working hours. Many commuters who use van pools say that they make their day less stressful.

Making Efficiency Pay for Itself

The Energy Security for American Families initiative could assist most households earning less than \$75,000 a year

if it were funded at a level of \$45 billion a year for three years. The bulk of the funding would go toward transit tax rebates and vouchers for autos and home efficiency improvements. Yearly, that level of funding would provide between 15 million and 21 million transit riders with rebates, offer vouchers for 5-10 million autos and 10 million home efficiency projects. Over three years, the program could reach more than 70 million families. Twenty million families would also be able to borrow \$15,000 at low rates to buy cars and make home efficiency improvements. The cost of that \$300 billion loan guarantee program would be approximately \$3 billion over five years. Another \$9.5 billion a year would be distributed to states to create "nudges" and flexible transit.

The Energy Security for American Families initiative could be funded in part by a modest tax on imported oil. The United States imports 13.6 million barrels of oil a day. A tax of \$6 a barrel would yield a fund of nearly \$30 billion the first year, but would cost drivers just 14 cents a gallon. Over the course of a year, the average American family would pay less than \$90 toward the tax, an amount that could be entirely offset by a 5 percent decline in gasoline prices. Windfall profit taxes and economic stimulus funds -- including the \$1,000 per family energy subsidy proposed by Senator Obama -- might provide other sources of funding.

The primary purpose of the tax would be to provide a stable source of funds for energy efficiency investments, but it would have several other important effects as well. First, it would signal to the oil market and oil producers that Washington intends to overcome domestic political inertia and begin aggressively decreasing oil demand. An initiative of this scale on the part of the United States would also send a signal to other oil-consuming countries that America no longer intends to support "cheap-by-any-means-necessary" gasoline and is moving toward containing demand through market measures. The tax would also provide an opportunity to educate the public about ESAF's loan programs and other ways to reduce gasoline consumption. Driving habits and auto maintenance influence vehicle fuel efficiency by as much as 15 percent. Printing notices of the gas tax and tips for reducing fuel consumption on gas receipts could significantly increase driver awareness and reduce demand.

A Better Future

The Energy Security for American Families initiative represents a long-term investment in the well-being of America's families as we head into an era of real uncertainty about energy security and climate change. Its targeted menu of vouchers, low-interest loans, and market incentives will help working families adjust to high energy prices, while increasing U.S. energy productivity. By shifting spending from energy bills to investment, ESAF will stimulate the economy and encourage businesses that provide smart energy solutions. ESAF's relatively low cost will not only reduce household bills but also yield big dividends in greenhouse gas emissions reduction. If 60 million families take advantage of ESAF to lower their energy consumption by just 10 percent, their total reduction of 132 million tons of CO₂ will be the equivalent of the emissions of Oregon, South Dakota, Vermont, Maine, Idaho, Delaware, Washington, D.C., and Maine combined. Empowering moderate-income families to be active agents in ensuring America's energy security will strengthen our overall economy and assure a greener, more prosperous future for all of us.

Lisa Margonelli is a California-based fellow with the New America Foundation. This paper is the second in our series of [Big Ideas for a New America](http://www.newamerica.net/bigideas). To learn more, please visit www.newamerica.net/bigideas.

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